This printed version of the Schedule of Classes is current as of 10/5/22 12:54 PM.

AASP African American Studies Spring 2022

AASP100 **Introduction to African American Studies**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHS, DVUP

Significant aspects of the history of African Americans with particular emphasis on the evolution and development of black communities from slavery to the present. Interdisciplinary introduction to social, political, legal and economic roots of contemporary problems faced by blacks in the United States with applications to the lives of other racial and ethnic minorities in the Americas and in other societies.

0101	Shane Walsh MWF 10:00am - 10:50am	Seats (Total: 35) SQH 1119
0201	Shane Walsh MWF 12:00pm - 12:50pm	Seats (Total: 35) KEY 0116
0301	George Kintiba MWF 12:00pm - 12:50pm	Seats (Total: 30) SKN 1115
0401	Robert Choflet TuTh 12:30pm - 1:45pm	Seats (Total: 30) KEY 0116
0501	Jason Nichols TuTh 11:00am - 12:15pm	Seats (Total: 30) JMZ 2207
0601	Jason Nichols TuTh 2:00pm - 3:15pm	Seats (Total: 35) SYM 0215

AASP100H **Introduction to African American Studies**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHS, DVUP

Significant aspects of the history of African Americans with particular emphasis on the evolution and development of black communities from slavery to the present. Interdisciplinary introduction to social, political, legal and economic roots of contemporary problems faced by blacks in the United States with applications to the lives of other racial and ethnic minorities in the Americas and in other societies.

Restricted to HONR students only.

0301	George Kintiba MWF 12:00pm - 12:50pm	Seats (Total: 5) SKN 1115

0401	Robert Choflet	Seats (Total: 5)
	TuTh 12:30pm - 1:45pm	KEY 0116

AASP101 **Public Policy and the Black Community**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

Formerly: AASP300.

The impact of public policies on the black community and the role of the policy process in affecting the social, economic and political well-being of minorities. Particular attention given to the post-1960 to present era.

0101	Ashley Newby	Seats (Total: 35)
	TuTh 9:30am - 10:45am	TYD 0111

AASP187 **The New Jim Crow: African-Americans, Mass Incarceration and the Prison Industrial Complex**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, DVUP, SCIS

Recommended: AASP100.

Students will examine the birth of the racial caste system following the abolition of slavery, the parallels between the racial hierarchy of the Jim Crow system and contemporary mass incarceration, and the rise of the prison industrial complex as a multi-billon business which thrives on the oppression of low-income populations and poor communities of color.

0101	John Drabinski, Ashley Newby	Seats (Total: 105)
	Th 3:30pm - 6:00pm	ONLINE

AASP200 **African Civilization**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO | General Education: DSHU

A survey of African civilizations from 4500 B.C. to present. Analysis of traditional social systems. Discussion of the impact of European colonization on these civilizations. Analysis of the influence of traditional African social systems on modern African institutions as well as discussion of contemporary processes of Africanization.

0101	George Kintiba	Seats (Total: 40)
	MWF 10:00am - 10:50am	TYD 1118

AASP202 **Black Culture in the United States**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SH, D	General Education: DSHS, DVUP

The course examines important aspects of African American life and thought which are reflected in African American literature, drama, music and art. Beginning with the cultural heritage of slavery, the course surveys the changing modes of black creative expression from the 19th-century to the present.

0101	Robert Choflet TuTh 11:00am - 12:15pm	Seats (Total: 30) CHM 1224
0201	Renina Jarmon MWF 1:00pm - 1:50pm	Seats (Total: 35) WDS 1114
0301	Renina Jarmon MWF 11:00am - 11:50am	Seats (Total: 35) JMP 2202
0401	Robert Choflet TuTh 2:00pm - 3:15pm	Seats (Total: 35) MTH B0421

AASP202H **Black Culture in the United States**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SH, D	General Education: DSHS, DVUP

The course examines important aspects of African American life and thought which are reflected in African American literature, drama, music and art. Beginning with the cultural heritage of slavery, the course surveys the changing modes of black creative expression from the 19th-century to the present.

0101	Robert Choflet TuTh 11:00am - 12:15pm	Seats (Total: 5) CHM 1224

AASP211 **Get Out: The Sunken Place of Race Relations in the Post-Racial Era**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit		General Education: DSHS, DVUP, SCIS

Credit only granted for: AASP298G or AASP211. Formerly: AASP298G.

Prevailing thought suggests that we live in an era that is post-racial, particularly after the election of Barack Obama. Media often serves to drive our assessment of where our nation stands on issues like race, gender and sexuality. This course uses the film Get Out to delve into the production, evolution and significance of race in present day America. The course will engage multiple forms of media to investigate life in "Post-Racial" America, including but not limited to the role of stereotypes, interracial relationships, police-community relations, etc.

0101	Shane Walsh, Jason Nichols Tu 3:30pm - 6:00pm	Seats (Total: 105) ONLINE

AASP298F **Special Topics in African American Studies; Caribbean Film and Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An introductory multi-disciplinary and inter-disciplinary educational experience to explore issues relevant to black life, cultural experiences, and political, economic, and artistic development.

Contact department for information to register for this course.

AASP298I **Special Topics in African American Studies; Introduction to Black Women's Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An introductory multi-disciplinary and inter-disciplinary educational experience to explore issues relevant to black life, cultural experiences, and political, economic, and artistic development.

Cross-listing with WGSS263. Credit only granted for: WMST263, AASP298I or WGSS263. Interdisciplinary exploration of Black women, culture and society in the United States. Drawn primarily from the social sciences and history with complementary material from literature and the arts.

0101	Elsa Barkley Brown TuTh 12:30pm - 1:45pm	Seats (Total: 40) KEY 0103

AASP298L **African-American Literature and Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HL, D General Education: DSHU, DVUP

Cross-listed with: ENGL234. Credit only granted for: ENGL234 or AASP298L.

An exploration of the stories black authors tell about themselves, their communities, and the nation as informed by time and place, gender, sexuality, and class. African American perspective themes such as art, childhood, sexuality, marriage, alienation and mortality, as well as representations of slavery, Reconstruction, racial violence and the Nadir, legalized racism and segregation, black patriotism and black ex-patriots, the optimism of integration, and the prospects of a post-racial America.

Cross-listed with ENGL234. Credit granted for AASP298L or ENGL234.

0101	Chauncey Dennie TuTh 12:30pm - 1:45pm	Seats (Total: 30) JMZ 2206

AASP298Z **Special Topics in African American Studies; Jazz as a Cultural Art Form**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

An introductory multi-disciplinary and inter-disciplinary educational experience to explore issues relevant to black life, cultural experiences, and political, economic, and artistic development.

0101	Ronald Zeigler M 2:00pm - 4:30pm	Seats (Total: 25) NNC 0130

AASP317 **Black in Latin America and the Caribbean**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The goal of this course is to have an understanding of race, color, and blackness across the Americas. We will compare and contrast forms of racial categorization, discrimination, and ideologies, whether in the form of nation-building projects, addressing racial inequality, or sexuality and family formation. We will draw primarily on social science perspectives, including the work of sociologists and political scientists.

0101	Chinyere Osuji TuTh 12:30pm - 1:45pm	Seats (Total: 25) ONLINE

AASP386 **Experiential Learning**

(Perm req)

Credits: 3-6

Grading Method: Regular, Pass-Fail

Restriction: Permission of BSOS-African American Studies department; and junior standing or higher.

0101	Marshal Washington F 2:00pm - 4:30pm	Seats (Total: 10) TLF 1102

AASP395 **Fundamentals of Quantitative Research in Socio-Cultural Perspective**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in African American Studies program; and junior standing or higher.

Introduction to quantitative methods for African American Studies majors in the cultural and social analysis concentration. Basics of survey design and experimental design and data analysis and use of statistical software programs.

0101	Angel Dunbar TuTh 12:30pm - 1:45pm	Seats (Total: 20) LEF 1220

AASP397 **Senior Thesis**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of BSOS-African American Studies department.

Directed research in African American Studies resulting in the completion and defense of a senior thesis.

Contact department for information to register for this course.

AASP398P **Selected Topics in the African Diaspora; Introduction to Pan-Africanism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Analysis of the historical experiences and cultures of Africans in the diaspora.

0101	George Kintiba MWF 2:00pm - 2:50pm	Seats (Total: 25) LEF 1201

AASP399 **Research in African-American Studies**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

African American Studies research labs are the settings in which the most recent scholarly work of each faculty member takes place with the enterprise of conducting and disseminating research. Faculty members operate as the team leader and faculty mentor working with undergraduate students around a specific research topic or project. Students will have the opportunity to assist with reviewing literature, data gathering, data management, coding analysis, and the preparation of conference presentations and scholarly publications while advancing their own scholarship and interests, cultivating integrative skills, and gain training in a specialized aspect of the African American Studies discipline, which may not be otherwise available from other experiences on campus.

Contact department for information to register for this course.

AASP400 **Directed Readings in African American Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, DVUP

Prerequisite: AASP202 or AASP100.

The readings will be directed by the faculty of African American Studies. Topics to be covered will be chosen to meet the needs and interests of individual students.

0101	Sharon Harley TuTh 11:00am - 12:15pm	Seats (Total: 15) TLF 1103

AASP400H **Directed Readings in African American Studies**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DVUP

Prerequisite: AASP202 or AASP100.

The readings will be directed by the faculty of African American Studies. Topics to be covered will be chosen to meet the needs and interests of individual students.

0101	Sharon Harley TuTh 11:00am - 12:15pm	Seats (Total: 5) TLF 1103

AASP478B **Humanities Topics in African American Studies; African-American Literature: From Slavery to Freedom**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Advanced studies in the humanities, often requiring prerequisites, focusing on the literary, artistic and philosophical contributions of Africans and African Americans.

Prerequisite: Two English courses in literature; or permission of ARHU-English department. Also offered as ENGL470. Credit granted for ENGL470 or AASP478B.

0101	Edlie Wong TuTh 11:00am - 12:15pm	Seats (Total: 15) TWS 0236

AASP478L **Humanities Topics in African American Studies; Literature and the Shaping of the Caribbean**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Advanced studies in the humanities, often requiring prerequisites, focusing on the literary, artistic and philosophical contributions of Africans and African Americans.

Contact department for information to register for this course.

AASP498C **Special Topics in Black Culture; Twenty-First Century Black Feminisms**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced study of the cultural and historical antecedents of contemporary African and African American society. Emphasis on the social, political, economic and behavioral factors affecting blacks and their communities. Topics vary.

Cross-listing with WGSS428L. Credit only granted for WGSS428L, WMST428L, or AASP498C. Built loosely around Dr. Brittney Cooper's 2018 Black feminist manifesto Eloquent Rage, this course looks at Black women's anger as a generative force for social change. Through reading Cooper's book, and the intersectional Black feminist texts that inspired it, this course will explore Black women's sexuality and family life, Black popular culture, Black women's politics, Black women's bodily autonomy, and the simmering rage which undergirds many Black women's experiences in the United States.

0101	Sydney Lewis	Seats (Total: 30)
	Th 4:00pm - 6:30pm	KEY 0100

AASP498E **Special Topics in Black Culture; Emotions and Culture in the African-American Community**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced study of the cultural and historical antecedents of contemporary African and African American society. Emphasis on the social, political, economic and behavioral factors affecting blacks and their communities. Topics vary.

0101	Angel Dunbar	Seats (Total: 25)
	TuTh 9:30am - 10:45am	SQH 1123

AASP498F **Special Topics in Black Culture; Women in Caribbean**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced study of the cultural and historical antecedents of contemporary African and African American society. Emphasis on the social, political, economic and behavioral factors affecting blacks and their communities. Topics vary.

Contact department for information to register for this course.

AASP498I **Special Topics in Black Culture; Women and the Civil Rights Movement**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced study of the cultural and historical antecedents of contemporary African and African American society. Emphasis on the social, political, economic and behavioral factors affecting blacks and their communities. Topics vary.

Cross-listed with HIST360 and WGSS498M. Credit only granted for HIST360, AASP498I, WGSS498M, or WMST498M. Twentieth-century U.S. civil rights movement from the vantage point of women, considering both women's involvement in the legal campaigns and political protests and the impact of civil rights struggles on women's condition, status, and identity.

0101	Elsa Barkley Brown TuTh 3:30pm - 4:45pm	Seats (Total: 40) KEY 0126

AAST Asian American Studies Spring 2022

AAST200 **Introduction to Asian American Studies**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB, D | General Education: DSHS, DVUP

Cross-listed with: AMST298C. Credit only granted for: AAST200 or AMST298C.

The aggregate experience of Asian Pacific Americans, from developments in the countries of origin to their contemporary issues. The histories of Asian Pacific American groups as well as culture, politics, the media, and stereotypes, viewed from an interdisciplinary perspective.

0101	Julie Park TuTh 2:00pm - 3:15pm	Seats (Total: 40) SQH 1117
0201	Binod Paudyal TuTh 11:00am - 12:15pm	Seats (Total: 40) TYD 2106

AAST233 **Introduction to Asian American Literature**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL, D | General Education: DSHU, DVUP

Cross-listed with: ENGL233. Credit only granted for: ENGL233 or AAST233.

A survey of Asian American literature with an emphasis on recurrent themes and historical context.

0101	Jonathan Reyes TuTh 9:30am - 10:45am	Seats (Total: 30) JMZ 0208

AAST351 **Asian Americans and Media**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP, DVUP

Credit only granted for: AAST351, AAST398M or AAST398N. Formerly: AAST398M, AAST398N.

From yellow peril invaders to model minority allies, Asian Americans have crafted their own dynamic cultural expressions in a number of media from film, television, and music to fashion, sports, and food that reveal and contest the contradictions of the U.S. nation-state. Asian American culture also uniquely sits at the nexus of immigration flows and digital technologies, providing a transnational lens to view the US place in the world. This advanced course, then, will introduce students to the study and practice of Asian American cyktyre as multiple , hybrid, and heterogeneous. It will do so through three sections: section one will introduce students to classical, cultural, and media concepts as well as relevant keywords outlined by Asian American Studies scholars; section two will review the work of Asian American cultural theorists; section three will focus on analyses of particular Asian American cultural productions. In doing so, students will gain an understanding of the shifting and interlocking tensions among the local, the national, and the global that form the cultural geographies of Asian America.

0101	Binod Paudyal TuTh 9:30am - 10:45am	Seats (Total: 30) JMZ 3205
0201	Binod Paudyal TuTh 2:00pm - 3:15pm	Seats (Total: 20) TWS 1105

AAST378 **Experiential Learning**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Field experience/internship in professional organizations and appropriate private and governmental agencies serving the Asian American community.

0101	Julie Park Contact instructor or department for details.	Seats (Total: 2)

AAST388 **Independent Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Directed, independent study in Asian American Studies resulting in the completion of an original research paper.

Prerequisite: permission of department.

0101	Julie Park Contact instructor or department for details.	Seats (Total: 2)
0201	Binod Paudyal Contact instructor or department for details.	Seats (Total: 2)

AAST394 **Growing Up Asian American: The Asian Immigrant Family and the Second Generation**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DVCC

Cross-listed with: AMST324, IMMR394. Credit only granted for: AAST394, AAST398E, AMST324, AMST328V, IMMR319G or IMMR394. Formerly: AAST398E.

An interdisciplinary course examines the experiences of children of Asian immigrants in the U.S., focusing on intergenerational dynamics in the Asian immigrant family, their intersections with race, gender, class, sexuality, and religion, and how these shape second-generation Asian American life. Topics include identity and personhood, the model minority myth and education, work and leisure, language and communication, filiality and disownment, mental health and suicide.

0101	Yeram Cheong	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	TWS 0223

AAST398J **Selected Topics in Asian American Studies; New World Arrivals: Literature of Asian American Migration and Diaspora**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Study of a specific theme or issue involving the Asian America experience.

Cross-listed with ENGL349J. Credit granted for AAST398J or ENGL349J.

0101	Edlie Wong	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	TWS 0236

AAST421 **Asian American Public Policy**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVCC

Cross-listed with: AMST418N. Credit only granted for: AAST421, AAST498M or AMST418N. Formerly: AAST498M.

Using Asian Pacific Americans as a case study, this course will analyze the development of public policy in America. Each week, topics such as community development, voting rights, and the movement to redress the wartime internment of Japanese Americans will serve as backdrops for discussion. We will explore the policy-making roles of legislators, judges, local and national political leaders, journalists, writers, unions, social movements, and community organizations.

0101	Philip Nash	Seats (Total: 20)
	M 5:00pm - 7:30pm	KEY 0117

AAST443 **Asian American Politics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DVUP

Cross-listed with: AMST498J. Credit only granted for: AAST498T, AAST443, GVPT368C or AMST 498J. Formerly: AAST498T.

Students will gain a greater understanding of 1)the role of Asian Americans in US politics, 2) the political attitudes and behaviors of Asian Americans and 3)how to conduct research on Asian American politics. Though the class will concentrate on Asian Americans, issues related to Asian American politics will be examined within the larger context of America's multicultural political landscape.

0101	Janelle Wong MW 2:00pm - 3:15pm	Seats (Total: 40) TYD 0102

AAST498J **Advanced Topics in Asian American Studies; Asian American Psychology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Advanced study of the cultural and historical antecedents of contemporary Asian American society. Emphasis on the social, political, economic, and behavioral factors affecting Asian Americans and their communities.

Restricted to PSYC majors and students in the Asian American Studies Program only. Cross-listed with PSYC489Z. Credit only granted for PSYC489Z or AAST498J. This course will increase knowledge regarding how socio-cultural influences impact the development and psychological health of Asian Americans. Students will develop a deeper understanding of the role of stereotypes and racism, acculturation, racial identity development, cultural values, gender socialization, behavioral norms, family roles, stressors, and social support systems have on the mental health, well-being, and health of Asian Americans.

0101	Derek Iwamoto TuTh 12:30pm - 1:45pm	Seats (Total: 60) PLS 1140

AAST498Z **Advanced Topics in Asian American Studies; South Asian Literature on the Move**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Advanced study of the cultural and historical antecedents of contemporary Asian American society. Emphasis on the social, political, economic, and behavioral factors affecting Asian Americans and their communities.

Prerequisite: Two English courses in literature or permission of ARHU-English department. Repeatable to 9 credits if content differs. Cross-listed with ENGL479Z. Credit granted for ENGL479Z or AAST498Z.

0101	Sangeeta Ray	Seats (Total: 20)
	MW 3:30pm - 4:45pm	ONLINE

AGNR Agriculture and Natural Resources Spring 2022

AGNR301 **Sustainability**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: PLCY301. Credit only granted for: AGNR301, PUAF301, or PLCY301. Formerly: PUAF301.

Designed for students whose academic majors would be enhanced by the complementary study of a widely shared but hard-to-operationalize aspiration: that present choices should preserve or improve future options rather than foreclose or degrade them. How should we understand sustainability? How might we achieve it? How would we know if we had achieved it? And how could sustainability activists of a rising generation lead by example?

0101	Matthew Regan	Seats (Total: 169)
	TuTh 3:30pm - 4:45pm	SHM 2102

AGNR320 **Introduction to Geosciences**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Greater than or equal to 60 credit hours earned in a STEM or Education major.

Under the geoscience topic, while making STEM learning meaningful and inspiring, will blend four disciplines. The inspiration will be drawn from real-life examples shared with students in the course that can be relatable to all students regardless of background. Each topic will contain a corresponding experiment/case study designed to guide the students through Identifying the issue and responsible parties, assessing the level of issue based on collected data (given), determine a method for remediation and/or removal, developing a community outreach component through science communication, and proposing an implementation plan for their remediation and/or removal design.

0101	Candice Duncan	Seats (Total: 20)
	F 10:00am - 11:00am	Location: TBA

AGNR388 **Honors Thesis Research**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

0101	Evelyn Cooper	Seats (Total: 20)
	Contact instructor or department for details.	

AGST Agricultural Science and Technology Spring 2022

AGST442 **Examining Leadership in Youth and Volunteers**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Explore fundamental leadership theories and practice related skills utilized in helping youth and adults build community relationships in a variety of teaching environments. Fundamentals of youth development will be the basis for examining how to foster positive learning environments for dynamic learning. The identification of empowerment processes will be explored through case-study discussions.

0101	Melissa Welsh	Seats (Total: 24)
	W 4:00pm - 5:30pm Class time/details on ELMs	PLS 2137 ONLINE

AMSC Applied Mathematics & Scientific Computation Spring 2022

AMSC420 **Mathematical Modeling**

Credits: 3 Grading Method: Regular, Pass-Fail CORE: CS

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (MATH246, MATH341); and minimum grade of C- in STAT400. Cross-listed with: MATH420. Credit only granted for: AMSC420 or MATH420.

The course will develop skills in data-driven mathematical modeling through individual and group projects. Emphasis will be placed on both analytical and computational methods, and on effective oral and written presentation of results.

0101	Charles Levermore	Seats (Total: 30)
	MWF 11:00am - 11:50am	MTH 0106

AMSC460 **Computational Methods**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (CMSC106, CMSC131); and minimum grade of C- in MATH246. Cross-listed with: CMSC460. Credit only granted for: AMSC460, AMSC466, CMSC460, or CMSC466.

Basic computational methods for interpolation, least squares, approximation, numerical quadrature, numerical solution of polynomial and transcendental equations, systems of linear equations and initial value problems for ordinary differential equations. Emphasis on methods and their computational properties rather than their analytic aspects. Intended primarily for students in the physical and engineering sciences.

0101	Tobias von Petersdorff MWF 2:00pm - 2:50pm	Seats (Total: 30) MTH 0103
0201	Vladimir Yushutin TuTh 9:30am - 10:45am	Seats (Total: 30) ITV 1100
0301	Vladimir Yushutin TuTh 12:30pm - 1:45pm	Seats (Total: 30) ITV 1100
0401	Christopher Moakler TuTh 2:00pm - 3:15pm	Seats (Total: 30) ITV 1100

AMSC466 **Introduction to Numerical Analysis I**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (CMSC106, CMSC131); and minimum grade of C- in MATH410. Cross-listed with: CMSC466. Credit only granted for: AMSC460, CMSC460, AMSC466, or CMSC466.

Floating point computations, direct methods for linear systems, interpolation, solution of nonlinear equations.

0101	Maria Cameron TuTh 11:00am - 12:15pm	Seats (Total: 25) PHY 2214

AMSC498A **Selected Topics in Applied Mathematics**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Topics in applied mathematics of special interest to advanced undergraduate students.

Contact department for information to register for this course.

AMSC661 **Scientific Computing II**

(Perm req)

Credits: 3

Grading Method: Regular

Prerequisite: Must have knowledge of C or Fortran. And CMSC466, AMSC466, AMSC460, or CMSC460; or (must have knowledge of basic numerical analysis (linear equations, nonlinear equations, integration, interpolation); and permission of instructor). Cross-listed with: CMSC661. Credit only granted for: AMSC661 or CMSC661.

Fourier and wavelet transform methods, numerical methods for elliptic partial differential equations, numerical linear algebra for sparse matrices, Finite element methods, numerical methods for time dependent partial differential equations. Techniques for scientific computation with an introduction to the theory and software for each topic. Course is part of a two course sequence (660 and 661), but can be taken independently.

0101	Maria Cameron	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	MTH 0403

AMSC664 **Advanced Scientific Computing II**

(Perm req)

Credits: 3

Grading Method: Regular

Prerequisite: AMSC663 or CMSC663. Restriction: Permission of instructor. Cross-listed with: CMSC664. Credit only granted for: AMSC664 or CMSC664.

In the sequence Advanced Scientific Computing I & Advanced Scientific Computing II, (AMSC663/CMSC663 and CMSC664/CMSC664, respectively) students work on a year-long individual project to develop software for a scientific task in a high performance computing environment. Lectures will be given on available computational environments, code development, implementation of parallel algorithms.

0101	Howard Elman	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	EGR 1110

AMSC674 **Partial Differential Equations II**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: MATH673 or AMSC673; or permission of instructor. Cross-listed with: MATH674. Credit only granted for: AMSC674 or MATH674.

Boundary value problems for elliptic partial differential equations via operator-theoretic methods. Hilbert spaces of functions. Duality, weak convergence. Sobolev spaces. Spectral theory of compact operators. Eigenfunction expansions.

Offered Spring only.

0101	Matei Machedon	Seats (Total: 25)
	MWF 10:00am - 10:50am	PHY 2124

AMSC689 **Research Interactions in Applied Mathematics and Scientific Computation**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

The students participate in a vertically integrated (undergraduate, graduate and/or postdoctoral, faculty) research group. Format varies, but includes regular meetings, readings and presentations of material. See graduate program's online syllabus or contact the graduate program director for more information.

Contact department for information to register for this course.

AMSC715 **Numerical Methods for Evolution Partial Differential Equations**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of instructor; or one graduate level course in partial differential equations or one graduate level course in numerical analysis or scientific computing. Credit only granted for: AMSC612 or AMSC715. Formerly: AMSC612. Additional information: This course continues AMSC 714, but can be taken independently, and is a complement to the graduate courses MATH 673 and MATH 674 in PDEs, AMSC 666 in numerical analysis, and AMSC 660 and AMSC 661 in scientific computing.

Topics include: Heat and wave equations: maximum principle, energy methods and Sobolev spaces, finite difference and finite element methods, von Neumann analysis, stability and error estimates;Linear first order PDEs: upwinding and monotone schemes, finite difference, finite volume, and discontinuous Galerkin methods; Nonlinear conservation laws: weak solutions and entropy conditions,monotone methods.

0101	Ricardo Nochetto	Seats (Total: 20)
	TuTh 5:00pm - 6:15pm	MTH 0101

AMSC760 **Applied Statistics Practicum**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Must have completed one year of graduate study in Applied Statistics. Restriction: Must have project proposal approved by SAC coordinator.

A semester long applied applied statistical project (a minimum 10 hours per week or 120 hours in total), in an internship of collaborative research-laboratory setting working on a substantive applied quantitative project with significant statistical content.

0101	Instructor: TBA	Seats (Total: 10)
	Contact instructor or department for details.	

AMSC762 **Data Analysis Project**

(Perm req)

Credits: 1 Grading Method: Regular

Restriction: Permission of CMNS-Applied Mathematics department; and permission of instructor.

This course cannot be used to meet any of the Applied Statistics Area's seminar requirements. Offered yearly, required of and limited to MS non-thesis and doctoral students in Applied Statistics Area, for whom the resulting projects serve as a Qualifying Exam component. After 5-6 lectures or presentations on components of successful data analyses and write-ups, 3-4 sessions will discuss previous student project submissions. The culminating project, to be completed in a two week period between semesters, is an analysis and written report of one of three project choices made available each year to represent a spectrum of realistic applied statistical problems.

0101	Instructor: TBA	Seats (Total: 20)
	Contact instructor or department for details.	

AMSC764 **Advanced Numerical Optimization**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH410; or permission of instructor. Cross-listed with C MSC764. Credit only granted for: AMSC607, AMSC764 or CMSC764. F ormerly: AMSC607.

Modern numerical methods for solving unconstrained and constrained nonlinear optimization problems in finite dimensions. Design of computational algorithms and the analysis of their properties.

0101	Thomas Goldstein	Seats (Total: 100)
	TuTh 11:00am - 12:15pm	IRB 0318

AMSC799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

AMSC808A **Advanced Topics in Applied Mathematics**

Credits: 1-3 Grading Method: Regular, Audit

Advanced topics of current interest.

Contact department for information to register for this course.

AMSC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Sat-Fail

Contact department for information to register for this course.

AMSC899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

AMST American Studies Spring 2022

AMST101 **Introduction American Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO, D General Education: DSHU, DVUP

Credit only granted for: AMST101 or AMST201. Formerly: AMST201.

Introduces students to the interdisciplinary field of American Studies by examining concepts such as culture, identity, cultural practices, and globalization, as well as theories underlying these concepts. Engages key themes, especially constructions of difference and identity, cultures of everyday life, and America and the world.

0101	Kevin Winstead MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 15) ONLINE ONLINE	 Discussion
0102	Kevin Winstead MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 15) ONLINE ONLINE	 Discussion
0103	Kevin Winstead MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 15) ONLINE ONLINE	 Discussion
0104	Kevin Winstead MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 15) ONLINE ONLINE	 Discussion

AMST110 **Rumi Rocks!: Persian Poets as Best Sellers and Spiritual Guides in America**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: PERS110. Credit only granted for: AMST110 or PERS110.

Analyzes the poetry of the great Persian poets Rumi and Hafez (in translation) with a particular eye towards understanding their blockbuster popularity in the United States as "mystical guides" for individuals dissatisfied with traditional institutional religions.

0101	Marjan Moosavi, Fatemeh Keshavarz-Karamustafa	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	JMZ 2206

AMST202 **Cultures of Everyday Life in America**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS

Examine the structures and patterns of everyday life in the U.S., utilizing methods such as ethnography, oral history, survey research, and textual, visual, and material cultural analysis.

0101	Dallas Donnell	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	TWS 0328

AMST203 **Popular Culture in America**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO | General Education: DSHU, DVUP

An introduction to American popular culture, its historical development, and its role as a reflection of and influence on our culture and society.

0102	Eva Hageman	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	TWS 0134

AMST205 **Material Aspects of American Life**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA | General Education: DSHU, DVUP

Historical survey of American material culture. Ways of describing and interpreting accumulated material evidence (e.g., buildings, town plans) introduced by stressing relationship between artifact and culture.

0101	Wanda Hernandez	Seats (Total: 25)
	TuTh 9:30am - 10:45am	TWS 0330

AMST210 **Introduction to Ethnography**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

A qualitative research method course used to study social worlds communities, cultures, institutions, and other social groups from the perspectives of the people who inhabit those social worlds. Ethnographic research involves understanding cultural traditions from an insider's perspective by studying the everyday lives of people steeped in those traditions.

0101	Asim Ali	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	TWS 1313

AMST213 **Heroes and Villains in American Film**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP

Cross-listed with: CINE282. Credit only granted for: AMST213, HONR219F, CINE282 or FILM298V. Formerly: HONR219F, FILM298V.

We will examine the complex, changing, and ever-present representations of heroes and villains in American film. Beginning with a foundational understanding of how heroes and, conversely, villains have been defined through classic Hollywood film, we will explore how these definitions have shifted throughout the 20th and 21st century in various narrative genres, including westerns, war films, film noir, fantasy, science fiction, and, of course, superhero movies. In particular, we will be focusing on how the hero and villain maintain or disrupt specific cultural ideologies concerning race/ethnicity, gender, sexuality, and ability. This course will examine how these various ideologies have evolved throughout the 20th and 21st century, impacting the ways in which heroes and villains are both represented in American film and perceived by diverse audiences. Finally, we will examine our own complicated and sometimes troubling identification with these heroes, even when they might stand in stark contrast to our cultural values and identities.

0101	Susan Pramschufer	Seats (Total: 35)
	TuTh 9:30am - 10:45am	TYD 1108

AMST260 **American Culture in the Information Age**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS, SCIS

Credit only granted for: AMST260 or AMST298I. Formerly: AMST298I.

Examines the ways in which content and form of public information interact with the culture, families & individuals.

0101	Jason Farman TuTh 3:30pm - 4:45pm	Seats (Total: 60) ESJ 2309

AMST290 **Shifting Sands: Constructing Cultural Mainstreams and Margins in the U.S.**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, DSHU, DVUP, SCIS

Credit only granted for: AMST289A or AMST290. Formerly: AMST289A.

Examines the construction, operation, and meaning of cultural mainstreams and margins in a range of contexts, spaces, and times in the U.S. Using a variety of primary sources, research methods, and interdisciplinary scholarship, we will explore how Americans make and assign meaning to cultural mainstreams and margins. We will examine how and why cultural margins and mainstreams shift over time and what their consequences have been for social policies, laws, power relations, and national identity.

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0101	Jason Nichols TuTh 12:30pm - 1:45pm	Seats (Total: 60) ONLINE

AMST298C **Introduction to Asian American Studies**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB, D | General Education: DSHS, DVUP

Cross-listed with: AAST200. Credit only granted for: AAST200 or AMST298C.

The aggregate experience of Asian Pacific Americans, from developments in the countries of origin to their contemporary issues. The histories of Asian Pacific American groups as well as culture, politics, the media, and stereotypes, viewed from an interdisciplinary perspective.

0101	Julie Park TuTh 2:00pm - 3:15pm	Seats (Total: 40) SQH 1117
0201	Binod Paudyal TuTh 11:00am - 12:15pm	Seats (Total: 40) TYD 2106

AMST298Q **U.S. Latinx Literature and Culture**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HO, D	General Education: DSHU, DVUP

Cross-listed with: ENGL235. Credit only granted for: ENGL235 or AMST298Q.

Examines the poetry, prose, and theater of Latinx communities in the United States from their origins in the Spanish colonization of North America to their ongoing development in the 21st century. Considers how authors use literary form to gain insight into human experience, including mortality, religious belief, gender and sexuality, war and peace, family, language use, scientific inquiry, cultural tradition, ecology, and labor. Also studies how Latinx literary traditions have shaped and been shaped by broader currents in American literature, as well as what connections exist between Latinx literature and social and artistic developments in other parts of the world, particularly Latin America and the Caribbean. Authors may include Alvar Nunez Cabeza de Vaca, Eulalia Perez, Juan Nepomuceno Seguin, Maria Amparo Ruiz de Burton, Jose Marti, Arthur A. Schomburg, Jesus Colon, Julia de Burgos, Cesar Chavez, Ariel Dorfman, Gloria Anzaldua, Junot Diaz, and Cristina Garcia.

0101	Andrea Knowles	Seats (Total: 30)	
	MWF 11:00am - 11:50am	KEY 0125	

AMST310 **Introduction to Comparative Ethnic and Racial Studies**

Credits: 3	Grading Method: Regular, Pass-Fail	General Education: DSHS, DVUP

Cross-listed with: AAST310. Credit only granted for: AMST310, AAST398F, AAST310, or AMST328L. Formerly: AMST328L and AAST398F.

Introduces students to the study of race and ethnicity in the United States. The class is organized according to the following five units: (1) Introduction; (2) Key concepts; (3) Mechanisms of racial formation; (4) Prevailing myths about race; and (5) Contemporary issues related to race and ethnicity. Through readings, film clips, and presentations, we will explore how the concept of race has developed and endured over time and become familiar with key concepts, such as "race" and "intersectionality". We will attempt to better understand how race is associated with other forms of difference, such as class, gender and ethnicity. We will identify and confront the prevailing myths about race and ethnicity in the United States. Finally, we examine the ways in which contemporary issues reveal the dynamics of race and ethnicity.

0101	Neel Ahuja	Seats (Total: 20)	
	MW 3:00pm - 3:50pm Class time/details on ELMs	TWS 0330 ONLINE	 Discussion

AMST324 **Growing Up Asian American: The Asian Immigrant Family and the Second Generation**

Credits: 3	Grading Method: Regular	General Education: DVCC

Cross-listed with: AAST394, IMMR394. Credit only granted for: AAST394, AAST398E, AMST324, AMST328V, IMMR319G or IMMR394. Formerly: AAST398E.

An interdisciplinary course examines the experiences of children of Asian immigrants in the U.S., focusing on intergenerational dynamics in the Asian immigrant family, their intersections with race, gender, class, sexuality, and religion, and how these shape second-generation Asian American life. Topics include identity and personhood, the model minority myth and education, work and leisure, language and communication, filiality and disownment, mental health and suicide.

0101	Yeram Cheong	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	TWS 0223

AMST386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Restriction: Permission of ARHU-American Studies department; and junior standing or higher.

1501	Asim Ali	Seats (Total: 5)
	Contact instructor or department for details.	

AMST388 **Honors Thesis**

(Perm req)

Credits: 3 Grading Method: Regular

Individual research, thesis and oral defense. The research project will be conducted under the supervision of a faculty member.

Contact department for information to register for this course.

AMST398 **Independent Studies**

(Perm req)

Credits: 1-3 Grading Method: Regular

Provides the student with the opportunity to pursue independent, interdisciplinary research and reading in specific areas of American culture studies.

Contact department for information to register for this course.

AMST418H **Cultural Themes in America; Cultural Themes in America-Honors**

(Perm req)

Credits: 3 Grading Method: Regular

Examination of structure and development of American culture through themes such as "growing up American," "culture and mental disorders," "race," "ethnicity," "regionalism," "landscape," and "humor."

Prerequisite: At least three credit hours of prior coursework in AMST.

Contact department for information to register for this course.

AMST450 **Seminar in American Studies**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: CS | General Education: DSSP

Prerequisite: AMST201 and AMST340; and 1 course in AMST. Restriction: Senior standing; and must be in American Studies program.

Developments in theories and methods of American Studies scholarship, with emphasis upon interaction between the humanities and the social sciences in the process of cultural analysis and evaluation.

0101	Robert Chester TuTh 11:00am - 12:15pm	Seats (Total: 15) TWS 0134

AMST498J **Asian American Politics**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, DVUP

Cross-listed with: AAST443. Credit only granted for: AAST498T, AAST443, GVPT368C or AMST 498J. Formerly: AAST498T.

Students will gain a greater understanding of 1)the role of Asian Americans in US politics, 2) the political attitudes and behaviors of Asian Americans and 3)how to conduct research on Asian American politics. Though the class will concentrate on Asian Americans, issues related to Asian American politics will be examined within the larger context of America's multicultural political landscape.

0101	Janelle Wong MW 2:00pm - 3:15pm	Seats (Total: 40) TYD 0102

AMST498N **Special Topics in American Studies; Citizens, Refugees, and Immigrants**

Credits: 3 | Grading Method: Regular, Pass-Fail

Topics of special interest.

Cross-listed with: USLT403 and IMMR419D. Credit only granted for: USLT403, AMST498N, or IMMR419D. Citizenship, Refugee and Immigrant are guiding categories that often define the Latina/o community in the United States. Employing this analytical lens, this course critically engages with notions of exclusion and inclusion, which included documentation, status, race, gender, and power. To better understand how these ideas and processes work, students are introduced to the history of Latina/o migration, US immigration policies, racial formation theory, gender construction, borderland theory, and the politics of territoriality.

0101	Perla Guerrero	Seats (Total: 25)
	MW 2:00pm - 3:15pm	TWS 0134

AMST629L **Seminar in American Studies; Queer Political Histories**

Credits: 3 Grading Method: Regular, Audit

Cross-listed with WMST698L. Credit only granted for AMST629L or WMST698L. This course asks after the relationship between queer politics and lesbian, gay, bisexual, and transgender identities, in particular; the interface with other regimes of classification and resistance, namely, race; the relation to capitalism as well as to rights claims; and the forms ofdis/organization including social movements throughout history.

0101	Christina Hanhardt	Seats (Total: 15)
	Tu 4:00pm - 6:40pm	TWS 0134

AMST655 **Introduction to Museum Scholarship**

Credits: 3 Grading Method: Regular, Audit

Cross-listed with: ANTH655, HIST610, INST653. Credit only granted for: AMST655, ANTH655, HIST610, INST728T or INST653.

Provides students a basic understanding of museums as cultural and intellectual institutions. Topics include the historical development of museums, museums as resources for scholarly study, and the museum exhibition as medium for presentation of scholarship.

0101	Lesley Langa	Seats (Total: 15)	
	Tu 4:00pm - 5:45pm	ONLINE	
	Class time/details on ELMs	ONLINE	Discussion

AMST698 **Directed Readings in American Studies**

(Perm req)

Credits: 3 Grading Method: Regular

This course is designed to provide students with the opportunity to pursue independent, interdisciplinary research and reading in specific aspects of American culture under the supervision of a faculty member.

Contact department for information to register for this course.

AMST789 **Professional Development in Dance and Theatre**

Credits: 1 Grading Method: Regular, Audit

This course will introduce graduate students to the academic job market, competitive fellowships, and ALT-AC (alternative academic) careers. Topics will include the interdisciplinary job market, cover letters, cv's, teaching and research statements, the teaching/artist portfolio, the diversity statement, interfolio, letters of recommendation, writing samples, websites, interviewing, and careers beyond academia.

Cross-listing with TDPS789. Credit only granted for TDPS789 or AMST789.

0101	Caitlin Marshall, Van Tran Nguyen	Seats (Total: 18)	
	M 4:00pm - 6:00pm	PAC 1815	

AMST798 Non-Thesis Research

Credits: 1-3 Grading Method: Regular, Audit

Contact department for information to register for this course.

AMST799 Master's Thesis Research

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

AMST856 Museum Research Seminar

Credits: 3 Grading Method: Regular, Audit

Prerequisite: AMST655, ANTH655, or HIST610. Cross-listed with: ANTH856, HIST810, INST786. Credit only granted for: AMST856, ANTH856, HIST810, INST728U or INST786.

A research seminar focusing on the practice and presentation of cultural and historical scholarship in museums and historical sites. Students will complete an original research project on the challenges and opportunities of public exhibition and interpretation of cultural and historical research.

Additional Note: Cross-listed with ANTH856, HIST810, INST728U. For the Spring 2101 semester, Credit only granted for: AMST856, ANTH856, HIST810 OR INST728U.

0101	Mary Sies	Seats (Total: 15)	
	W 4:00pm - 5:45pm	ONLINE	
	Class time/details on ELMs	ONLINE	Discussion

AMST857 Museum Scholarship Practicum

(Perm req)

Credits: 3-6 Grading Method: Regular

Prerequisite: AMST856, ANTH856, or HIST810. Restriction: Permission of Museum Scholarship Program required. Cross-listed with: ANTH857, HIST811, INST787. Credit only granted for: AMST857, ANTH857, HIST811, INST728I or INST787.

Students devise and carry out a research program using the collections at the Smithsonian Institution or some other cooperating museum, working under joint supervision of a museum professional and a university faculty member.

0101	Paul Shackel Contact instructor or department for details.	Seats (Total: 2)
0301	Perla Guerrero Contact instructor or department for details.	Seats (Total: 2)
0401	Mary Sies Contact instructor or department for details.	Seats (Total: 4)
IM01	Paul Jaeger Contact instructor or department for details.	Seats (Total: 6)

AMST878A **American Studies Pedagogy Mentoring; Mentoring for First Year Teaching in American Studies**

Credits: 1-3 Grading Method: Sat-Fail, Audit

This course provides graduate teaching assistants with a structured approach to pedagogical content, techniques, and collaborative practices that they learn and then can use throughout their careers. It also commits a core faculty member to teaching pedagogy and makes it possible for the course to become a formal part of one's load.

0101	La Marr Bruce Contact instructor or department for details.	Seats (Total: 5)

AMST878B **American Studies Pedagogy Mentoring; Mentoring for Second Year Teaching in American Studies**

Credits: 1-3 Grading Method: Sat-Fail, Audit

This course provides graduate teaching assistants with a structured approach to pedagogical content, techniques, and collaborative practices that they learn and then can use throughout their careers. It also commits a core faculty member to teaching pedagogy and makes it possible for the course to become a formal part of one's load.

0101	La Marr Bruce Contact instructor or department for details.	Seats (Total: 5)

AMST878C **American Studies Pedagogy Mentoring; Mentoring for Third Year Teaching in American Studies**

Credits: 1-3 Grading Method: Sat-Fail, Audit

This course provides graduate teaching assistants with a structured approach to pedagogical content, techniques, and collaborative practices that they learn and then can use throughout their careers. It also commits a core faculty member to teaching pedagogy and makes it possible for the course to become a formal part of one's load.

0101	La Marr Bruce	Seats (Total: 5)
	Contact instructor or department for details.	

AMST898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

AMST899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ANSC Animal Science Spring 2022

The following courses may involve the use of animals. Students who are concerned about the use of animals in teaching have the responsibility to contact the instructor, prior to course enrollment, to determine whether animals are to be used in the course, whether class exercises involving animals are optional or required and what alternatives, if any, are available.

ANSC101 **Principles of Animal Science**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A comprehensive overview of the application of biology in the care and use of animals that live in close association with humans including food animals, companion animals, lab animals, zoo animals, etc. The role of science in modern food production using animals will be emphasized.

0101	Sarah Balcom	Seats (Total: 78)
	MWF 1:00pm - 1:50pm	ESJ 0215

ANSC103 **Principles of Animal Science Laboratory**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: Must have completed or be concurrently enrolled in ANSC101. Restriction: Must be in one of the following programs (Environmental Sci & Pol-Environment & Agriculture; Agricultural and Veterinary Medicine; Agricultural Science and Technology) ; or must be in a major within the AGNR-Animal & Avian Sciences department; or permission of department required for students in other College of AGNR programs.

Laboratory focusing on the application of biology in the care and use of animals that live in close association with humans including livestock and companion animals. Labs will include live animals.

Students must pay a $50.00 laboratory materials fee.

0101	Megan McLean M 10:00am - 11:50am	Seats (Total: 20) ANS 1144	
0102	Megan McLean Tu 2:00pm - 3:50pm	Seats (Total: 20) ANS 1144	

ANSC108 **Horse Care Practicum**

Credits: 1 Grading Method: Regular, Pass-Fail

This practicum course provides the opportunity for students to be involved in the routine care of the horses housed at the Campus Farm including grooming, feeding, turnout, first aid, record-keeping, and cleaning. Practical skills are supplemented with self-paced online learning.

0101	Amy Burk Class time/details on ELMs	Seats (Total: 35) ONLINE	

ANSC121 **Introduction to Livestock Judging**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Students will establish a working understanding of the structural anatomy of several livestock species- cattle, sheep, pigs, goats- and their individual importance in the Agricultural Industry, while gaining the ability to evaluate these species for soundness and show-ring appeal. Additionally, the class aims to provide students with confidence in justifying decisions of based on their evaluations and gain skills in public speaking. The course will include two weekend field trips to farms in order to practice judging skills.

0101	Racheal Slattery M 2:00pm - 2:50pm W 2:00pm - 3:50pm	Seats (Total: 10) ANS 0402 ANS 1144	 Lab

ANSC210 **Veterinary Terminology**

Credits: 1 Grading Method: Regular, Audit

Prerequisite: ANSC204 and ANSC205. Credit only granted for: The course is offered on-line through a series of self-paced modules on ELMS..

Students will learn terminology related to the clinical practice of small and large animal medicine including medical record terminology and a systems-based consideration of common practices and pathologies.

0101	Sarah Balcom	Seats (Total: 80)	
	Class time/details on ELMs	ONLINE	

ANSC212 **Applied Animal Physiology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANSC211; or (ANSC204 and ANSC205); or students who have taken courses with comparable content may contact the department.

The physiology of domesticated animals with emphasis on functions related to homeostasis, and the physiological adaptation to environmental influences.

0101	Monica VanKlompenberg	Seats (Total: 96)	
	MWF 1:00pm - 1:50pm	ESJ 1202	

ANSC214 **Applied Animal Physiology Laboratory**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: Must have completed or be concurrently enrolled in ANSC212.

Application of physiological laboratory techniques to domestic and lab animals.

Students must pay a $50.00 lab materials fee.

0101	Megan McLean	Seats (Total: 20)	
	M 2:00pm - 5:00pm	ANS 0108	Lab
0102	Megan McLean	Seats (Total: 20)	
	Tu 9:00am - 11:50am	ANS 0108	Lab

0103	Megan McLean W 2:00pm - 5:00pm	Seats (Total: 20) ANS 0108	Lab
0104	Megan McLean Th 9:00am - 11:50am	Seats (Total: 20) ANS 0108	Lab

ANSC227 **Eating with Eyes Wide Open**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNS, SCIS

Students will investigate the tension that is created by trade-offs that, knowingly or not, are made by consumers relative to agricultural production methods and dietary choices. Course will inform students about their food supply so they can make informed decisions and practice intentional or informed eating.

0101	R Apter MW 9:30am - 10:20am Tu 9:00am - 10:50am	Seats (Total: 20) ANS 0408 ANS 1144	Lab
0102	R Apter MW 9:30am - 10:20am W 11:00am - 12:50pm	Seats (Total: 20) ANS 0408 ANS 1144	Lab
0103	R Apter MW 9:30am - 10:20am F 11:00am - 12:50pm	Seats (Total: 20) ANS 0408 ANS 1144	Lab

ANSC237 **Equine Reproductive Management**

Credits: 3 | Grading Method: Regular, Pass-Fail

Prerequisite: ANSC232. Credit only granted for: ANSC237 or INAG233. Additional information: Course participation will include nightly checks of mares in the two weeks prior to parturition, and out-of-class time imprinting and working with newborn foals.

Students learn the fundamental skills necessary to manage an equine breeding herd including anatomy/physiology of genital tracts, estrus detection, manipulation of the estrous cycle, semen collection, pre- and post-foaling techniques, infertility, and health and nutrition of the mare, foal and stallion. Students will be required to spend ~ 30 hours during the spring semester caring for broodmares and foals and attending at least one foaling and estrous detection checks on broodmares outside of regularly scheduled class time.

Students must pay a $50.00 lab materials fee.

0101	Amy Burk MWF 12:00pm - 12:50pm	Seats (Total: 16) ANS 0412	

ANSC245 **Sheep Management**

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in ANSC101 and ANSC103. Restriction: Must be in one of the following programs (Animal Sciences: Animal Care & Management; Animal Sciences: Equine Studies; Animal Sciences: Laboratory Animal Care; Animal Sciences: Sciences/Preprofessional; Animal Sciences: Animal Biotechnology; Agricultural and Veterinary Medicine). Credit only granted for: ANSC235 or ANSC245.

Popularly known as "Lamb Watch", this course provides an immersion environment for learning and understanding pre- and post-natal care of ewes and lambs through direct, hands-on involvement in the birthing process and care of the neonate through weaning on the campus farm. Course topics include zoonoses, basic reproductive physiology of the sheep, normal and abnormal parturition, management of lambs, qualitative assessment, breeding principles, nutrition, products and their marketing, and ram management.

Students must pay a $50.00 laboratory materials fee.

0101	Sarah Balcom MW 3:00pm - 3:50pm M 1:00pm - 2:50pm	Seats (Total: 16) ANS 0408 ANS 1144	 Lab
0102	Sarah Balcom MW 3:00pm - 3:50pm Th 1:00pm - 2:50pm	Seats (Total: 16) ANS 0408 ANS 1144	 Lab

ANSC260 **Laboratory Animal Management**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ANSC101 and ANSC103. Credit only granted for: ANSC260 or ANSC413. Formerly: ANSC413.

A comprehensive course in care and management of laboratory animals. Topics covered include regulations governing the use of animals in research, laboratory animal facility design and management, animal research models, animal health management and husbandry, responsibilities of lab animal workers and career opportunities in the field. Hands-on labs focus on lab animal handling, husbandry and common techniques. Field trips are required, and you must attend a minimum number of field trips which will be held during lab time.

Students must pay a $50.00 lab materials fee.

0101	Angela Black	Seats (Total: 20)	
	MW 10:00am - 10:50am F 8:00am - 12:00pm	ANS 0412 Location: TBA	Lab

ANSC262 **Commercial Poultry Management**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ANSC101 and ANSC103.

Theory and science of rearing poultry and marketing poultry meat and eggs in the commercial sector. Includes current issues, organization of the industry, as well as fundamental biology of the domestic chicken. Students will help raise a flock of broiler chickens. Field trips to commercial poultry operations are required.

Students must pay a $50.00 laboratory materials fee.

0101	Monica VanKlompenberg	Seats (Total: 20)	
	MW 11:00am - 11:50am Th 3:00pm - 4:50pm	ANS 0402 ANS 1144	Lab

ANSC282 **Grazing Animal Management**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ANSC101 and ANSC103; or permission of instructor. Credit only granted for: ANSC110, ANSC282, or INAG116. Formerly: ANSC110.

For students interested in acquiring knowledge and skills in pasture management, grazing management of livestock (large and small ruminants, horses), and hay production. Fundamental information regarding best management practices for soils, plants, and grazing livestock will be covered

0101	R Apter	Seats (Total: 33)
	TuTh 11:00am - 12:15pm	ANS 1144

ANSC315 **Applied Animal Nutrition**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANSC314.

Elements of nutrition, source characteristics and adaptability of various feedstuffs to several classes of livestock. A study of the composition of feeds, nutrient requirements and computerized formulation of economic diets and rations for livestock.

Students must pay a $50.00 lab materials fee.

0101	Richard Kohn TuTh 12:30pm - 1:45pm Th 8:00am - 8:50am	Seats (Total: 27) ANS 0408 ANS 1144	 Discussion
0102	Richard Kohn TuTh 12:30pm - 1:45pm Th 9:00am - 9:50am	Seats (Total: 27) ANS 0408 ANS 1144	 Discussion
0103	Richard Kohn TuTh 12:30pm - 1:45pm W 9:00am - 9:50am	Seats (Total: 27) ANS 0408 ANS 1144	 Discussion

ANSC327 **Molecular and Quantitative Animal Genetics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANSC101, CHEM131, and ANSC103. And BSCI105; or (BSCI170 and BSCI171).

Classical, molecular, and population genetics with specific emphasis on animal systems will be covered. Also, disseminate information on molecular approaches for manipulating genetics at the whole animal level (transgenic and cloning). Other model organisms will be discussed to provide a conceptual framework.

0101	Iqbal Hamza, Jiuzhou Song TuTh 11:00am - 12:15pm	Seats (Total: 80) ANS 0408

ANSC330 **Equine Science**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ANSC232; or permission of instructor. Recommended: ANSC212 and ANSC211. Credit only granted for: ANSC230 or ANSC330. Formerly: ANSC230.

Scientific principles of horse behavior, anatomy, physiology, locomotion, nutrition, reproduction, growth, health and disease as applied to horses are emphasized.

Students must pay a $50.00 laboratory materials fee.

0101	Amy Burk	Seats (Total: 24)	
	MW 2:00pm - 2:50pm F 9:00am - 10:50am	ANS 0412 ANS 1144	Lab

ANSC340 **Health Management of Animal Populations**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Prerequisite: BSCI223; and (ANSC220, ANSC232, ANSC242, ANSC250, ANSC255, ANSC260, or ANSC262). Recommended: ANSC212. Credit only granted for: ANSC340 or ANSC412. Formerly: ANSC412.

A study of common and emerging animal diseases and their prevention and control. The main focus will be on livestock and poultry diseases. However, zoonotic, wildlife, and laboratory animal diseases will also be discussed along with risk assessment, bioterrorism counter-measures, and animal welfare, especially as these topics interface or impact animals used in food production.

0101	Andrew Broadbent	Seats (Total: 30)	
	TuTh 3:30pm - 4:45pm	ANS 0412	

ANSC359 **Internship Experience in Animal and Avian Sciences**

(Perm req)

Credits: 3-6 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Experiential learning is a key component in an animal science education. Through the internship program, you will have the opportunity to develop your expertise in a specific species and discipline within the animal science curriculum. You will arrange an on- or off-campus internship experience related to animal science. You will spend a specified number of hours at the internship site each week and attend biweekly classroom sessions where we will discuss how the study of animal science fits into your specific internship experience as well as understand how to achieve each of the course learning outcomes.

Prerequisite: ANSC220, ANSC232, ANSC242, ANSC250, ANSC255, ANSC260, or ANSC262. Restriction: Must be in a major within the AGNR-Animal & Avian Sciences department; and permission of instructor.

0101	Monica VanKlompenberg	Seats (Total: 15)	
	Tu 3:30pm - 5:30pm	ANS 0402	

ANSC379 **Animal Science Undergraduate Teaching Assistant Seminar**

(Perm req)

Credits: 2 | Grading Method: Regular, Pass-Fail

Seminar course for undergraduate teaching assistants within ANSC.

0101	Sarah Balcom W 12:00pm - 12:50pm Contact instructor or department for details.	Seats (Total: 10) ANSC 1408

ANSC388 **Honors Thesis Research**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

0701	Chad Stahl Contact instructor or department for details.	Seats (Total: 5)
2501	Richard Kohn Contact instructor or department for details.	Seats (Total: 5)
5201	Amy Burk Contact instructor or department for details.	Seats (Total: 5)
7101	Shawna Weimer Contact instructor or department for details.	Seats (Total: 5)
9102	Andrew Schiffmacher Contact instructor or department for details.	Seats (Total: 5)

ANSC389 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

ANSC399 **Special Problems in Animal Science**

(Perm req)

Credits: 1-2 Grading Method: Regular, Pass-Fail, Audit

Work assignments are designed to be proportional to the amount of credit. Students are expected to develop an abstract, fact sheet, manuscript, oral presentation, poster, webpage, journal-log, or other scholarly product associated with their study and/or project.

Contact department for information to register for this course.

ANSC435 **Experimental Embryology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Prerequisite: ANSC212. Recommended: Completion of one course in reproductive physiology is recommended. Credit only granted for: ANSC435 or ANSC489M. Formerly: ANSC489M.

Experimental approaches to mammalian embryology with emphasis on domestic livestock systems as applied to research and production systems. Lab will include hands-on experiments and demos of in vitro embryo production, embryo splitting, cell injection and nuclear transfer.

Students must pay a $50.00 lab materials fee.

0101	Carol Keefer, Andrew Schiffmacher	Seats (Total: 20)	
	Tu 2:00pm - 3:15pm	ANS 0108	
	Th 2:00pm - 5:00pm	ANS 0108	Lab

ANSC436 **Animal Health Policy and Communication**

Credits: 3 | Grading Method: Regular, Pass-Fail

Recommended: Completion of ANSC225 and ANSC340 recommend. Restriction: Must be in a major within the AGNR-Animal & Avian Sciences department; or permission of AGNR-VA-MD Regional COL Veterinary Med. Cross-listed with: VMSC436. Credit only granted for: ANSC489A, ANSC436, or VMSC436. Formerly: ANSC489A.

Intended for upper level students in Veterinary Medicine or Animal Science as well as other students who are interested in understanding how science and politics interact and influence animal health policy and how veterinarians and animal scientists can effectively communicate science to non-scientists such as legislators and policymakers.

0101	Nathaniel Tablante	Seats (Total: 10)	
	TuTh 9:30am - 10:45am	PLS 1172	

ANSC440 **Zoonotic Diseases and Control**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI223, ANSC212, ANSC327, BSCI222, BSCI421, or NFSC430; or students who have taken courses with comparable content may contact the department. Credit only granted for: ANSC440 or ANSC489R. Formerly: ANSC489R.

Global perspective of foodborne diseases common to animals and man, specifically those caused by farm animal-originated human pathogens (zoonoses) and their control. A selection of important zoonoses and food safety issues will be specifically covered with an emphasis on the principles of zoonotic disease transmission and control, risk factors to humans, and surveillance methods.

0101	Debabrata Biswas	Seats (Total: 32)
	TuTh 9:30am - 10:45am	ANS 0412

ANSC443 **Physiology of Lactation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANSC212; and CHEM231 or PLSC275. Recommended: BCHM463.

A comprehensive survey of lactation in laboratory and domestic animals. Other species are discussed where possible. Emphasis will be placed on physiological aspects of milk synthesis and secretion and on the cellular and molecular biology of mammary gland development.

0101	Monica VanKlompenberg	Seats (Total: 20)
	MWF 9:00am - 9:50am	ANS 0402

ANSC444 **Domestic Animal Endocrinology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANSC212; or permission of instructor. Restriction: Must not have completed ANSC644. Credit only granted for: ANSC489I, ANSC444, or ANSC644. Formerly: ANSC489I.

Current developments in endocrinology as it relates to animals used in the production of food and other products important to the well being of humans will be covered.

0101	Tom Porter	Seats (Total: 22)
	TuTh 2:00pm - 3:15pm	JMP 2202

ANSC445 **Comparative Digestive Physiology**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ANSC212.

Comparative gastrointestinal physiology and the pathophysiology of diseases involved in animal-related research. A comparative approach will be presented for much of this material, using the human, canine, porcine, equine, bovine, and avian when information is available. The ultimate aim of the course is to provide a comprehensive knowledge of comparative gastrointestinal pathophysiology, and to give students an insight into the current field of human and veterinary gastroenterology. Students should feel more comfortable reading cutting edge literature by the end of the course, and should acquire a greater understanding of potential digestive disease areas for their future career such as graduate, medical, and veterinary students.

0101	Younggeon Jin	Seats (Total: 20)
	MWF 1:00pm - 1:50pm	Location: TBA

ANSC453 **Animal Welfare and Bioethics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANSC101 and ANSC103; or BSCI106; or (BSCI160 and BSCI161); or permission of instructor. Restriction: Junior standing or higher.

Ethical concerns related to the use of animals in modern society. Historical and philosophical overview of animal welfare and bioethics. Applied ethical discussions on human/animal interrelationships, physical and genetic manipulation, and other current issues associated with the treatment of animals used in food production, research, zoos, and as pets.

0101	R Apter	Seats (Total: 44)
	MWF 1:00pm - 1:50pm	ANS 0408

ANSC454 **Nutritional Aspects of Metabolic Disease**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM131 and ANSC101, or BSCI170; or students who have taken courses with comparable content may contact the department. Credit only granted for: ANSC4890 or ANSC454. Formerly: ANSC489O.

Biochemical and physiological fundamentals of nutrition. Discussion of protein, fat,carbohydrate, minerals and vitamins and their roles and interrelationships innutrition, metabolism and diseases in humans and animals. The course will use recommended texts for foundation material as well as research papers to provide in-depth coverage and illustrate emerging themes in metabolic aspects of nutrition and disease.

0101	Byung-Eun Kim	Seats (Total: 12)
	TuTh 11:00am - 12:15pm	ANS 0402

ANSC489 **Current Topics in Animal Science**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Examination of current developments in the animal sciences.

Contact department for information to register for this course.

ANSC624 **Recent Advances in Animal and Avian Sciences**

Credits: 1 Grading Method: Regular

Restriction: Must be an Animal Sciences graduate student. Credit only granted for: ANSC698C or ANSC624. Formerly: ANSC698C.

Seminar course in advanced animal science research.

0101	Richard Kohn	Seats (Total: 30)
	Tu 3:30pm - 5:30pm	ANS 0408

ANSC627 **Molecular and Quantitative Genetics**

Credits: 3 Grading Method: Regular, Audit

Classical, molecular, and population genetics with specific emphasis on animal systems will be covered. Also, disseminate information on molecular approaches for manipulating genetics at the whole animal level (transgenic and cloning). Other model organisms will be discussed to provide a conceptual framework.

0101	Iqbal Hamza	Seats (Total: 10)
	TuTh 11:00am - 12:15pm	ANS 0408

ANSC644 **Molecular and Cellular Endocrinology**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must not have completed ANSC444. Credit only granted for: ANSC444,ANSC489I, ANSC644, or ANSC688I. Formerly: ANSC688I.

A comprehensive course covering the major endocrine systems in animals. Lecture topics include major endocrine axes, hormonal regulation of homeostasis, growth and reproduction, and endocrine mechanisms of action. Advanced concepts in the molecular and cell biology of hormone action and regulation addressed in weekly discussion sessions centered on current research publications in the field of molecular and cellular endocrinology.

0101	Tom Porter TuTh 2:00pm - 3:15pm Th 9:00am - 11:00am	Seats (Total: 10) JMP 2202 Location: TBA	Discussion

ANSC660 **Poultry Literature**

Credits: 1-4 Grading Method: Regular, Audit

Readings on individual topics are assigned. Written reports required. Methods of analysis and presentation of scientific material are discussed.

Contact department for information to register for this course.

ANSC688J **Special Topics; Zoonotic Diseases and Control**

Credits: 3 Grading Method: Regular, Audit

Lectures, experimental courses, and other special subjects in the fields of animal sciences and veterinary medicine.

Prerequisites: BSCI223; recommended NFSC430; or permission of instructor. Lectures will take a global perspective of foodborne diseases common to animals and man, specifically those caused by farm animal-originated human pathogens (zoonoses) and their control. A selection of important zoonoses and food safety issues will be specifically covered with an emphasis on the principles of zoonotic disease transmission and control, risk factors to humans, and surveillance mehtods.

0101	Debabrata Biswas TuTh 9:30am - 10:45am	Seats (Total: 6) ANS 0412

ANSC688O **Special Topics; Nutritional Aspects of Metabolic Disease**

Credits: 3 Grading Method: Regular, Audit

Lectures, experimental courses, and other special subjects in the fields of animal sciences and veterinary medicine.

Prequisite: CHEM131 and ANSC101, BSCI105; or equivalent. Biochemical and physiological fundamentals of nutrition. Discussion of protein, fat, carbohydrate, energy, minerals, and vitamins and their roles and interrelationships in nutrition, metabolism, and diseases in humans and animals. The course will use recommended texts for foundation.

0101	Byung-Eun Kim TuTh 11:00am - 12:15pm	Seats (Total: 8) ANS 0402

ANSC688W **Special Topics; Advanced Animal Welfare**

Credits: 1-4 Grading Method: Regular, Audit

Lectures, experimental courses, and other special subjects in the fields of animal sciences and veterinary medicine.

0101	R Apter	Seats (Total: 10)
	MWF 1:00pm - 1:50pm	Location: TBA

ANSC699 **Special Problems in Animal Science**

(Perm req)

Credits: 1-2 Grading Method: Regular, Audit

Work assigned in proportion to amount of credit. Prerequisite: approval of staff. Problems will be assigned which relate specifically to the character of work the student is pursuing.

Contact department for information to register for this course.

ANSC799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ANSC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

ANSC899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ANTH Anthropology Spring 2022

ANTH222 **Introduction to Ecological and Evolutionary Anthropology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit CORE: LL General Education: DSNL, DVUP

Credit only granted for: ANTH220 or ANTH222.

An introduction to the evolution of human physiology and human behavior, the relationship between hominid and non-hominid primates, and the study of relationships between a population of humans and their biophysical environment.

Students must pay a $40.00 lab materials fee.

0101	Barnet Pavao-Zuckerman TuTh 9:30am - 10:45am M 8:00am - 10:00am	Seats (Total: 17) TWS 0310 WDS 0124C	Lab
0102	Barnet Pavao-Zuckerman TuTh 9:30am - 10:45am M 11:00am - 1:00pm	Seats (Total: 18) TWS 0310 WDS 0124C	Lab
0103	Barnet Pavao-Zuckerman TuTh 9:30am - 10:45am M 2:00pm - 4:00pm	Seats (Total: 18) TWS 0310 WDS 0124C	Lab
0104	Barnet Pavao-Zuckerman TuTh 9:30am - 10:45am W 8:00am - 10:00am	Seats (Total: 18) TWS 0310 WDS 0124C	Lab
0105	Barnet Pavao-Zuckerman TuTh 9:30am - 10:45am W 11:00am - 1:00pm	Seats (Total: 18) TWS 0310 WDS 0124C	Lab
0106	Barnet Pavao-Zuckerman TuTh 9:30am - 10:45am W 2:00pm - 4:00pm	Seats (Total: 18) TWS 0310 WDS 0124C	Lab

ANTH240 **Introduction to Archaeology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB, D | General Education: DSHS, DVUP

Exploration of the variety of past human societies and cultures through archaeology, from the emergence of anatomically modern humans to the more recent historical past.

0101	Mark Leone MWF 11:00am - 11:50am	Seats (Total: 60) HJP 2242	
0201	Stephen Brighton MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 20) TWS 1100 WDS 1127	Discussion

0202	Stephen Brighton MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 20) TWS 1100 WDS 1127	Discussion
0203	Stephen Brighton MW 12:00pm - 12:50pm F 3:00pm - 3:50pm	Seats (Total: 20) TWS 1100 WDS 1127	Discussion

ANTH242 **Fire, Farming and Climate Change: An Archaeology Take on the History of Human Impacts on our Planet**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

An examination of why climate changes, the methods for recording climate change, and case studies of the varied responses of past human societies to climate change in different geographic regions and time periods with varying socio-political and economic systems.

0101	George Hambrecht TuTh 11:00am - 12:15pm	Seats (Total: 60) ESJ 2212	

ANTH260 **Introduction to Sociocultural Anthropology and Linguistics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB, D | General Education: DSHS, DVUP

Culture and social relationships in a wide variety of settings from small-scale to complex societies. An overview of how anthropology analyzes human behavior. Particular attention to the relationship between language and culture.

0101	Jana Kopelentova Rehak W 10:00am - 11:50am F 9:00am - 9:50am	Seats (Total: 20) CHE 2110 WDS 1131	Discussion
0102	Jana Kopelentova Rehak W 10:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 20) CHE 2110 WDS 1131	Discussion
0103	Jana Kopelentova Rehak W 10:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 20) CHE 2110 WDS 1131	Discussion

0104	Jana Kopelentova Rehak W 10:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 20) CHE 2110 WDS 1131	Discussion
0105	Jana Kopelentova Rehak W 10:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 20) CHE 2110 WDS 1131	Discussion
0106	Jana Kopelentova Rehak W 10:00am - 11:50am F 2:00pm - 2:50pm	Seats (Total: 20) CHE 2110 WDS 1131	Discussion

ANTH266 **Changing Climate, Changing Cultures**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS, DVCC, SCIS

Explore past, present, and future interactions between humans and climate. Discussions, methods-oriented activities, and case study analyses provide students a foundation for appreciating the role of anthropology in understanding, responding to, and preparing for climate change.

0101	Jana Kopelentova Rehak Th 9:30am - 10:45am Tu 9:30am - 10:45am	Seats (Total: 60) HJP 2242 ONLINE	

ANTH298B **Special Topics in Anthropology; Selected Musical Cultures of the World**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Anthropological perspectives on selected topics of broad general interest.

Also offered as MUSC220. For Spring 2020; credit only granted for MUET220, MUSC220, or ANTH298B.

0101	Siv Lie MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 15) SQH 1120 PAC 3160	Discussion
0102	Siv Lie MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 15) SQH 1120 PAC 3160	Discussion

0103	Siv Lie MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 15) SQH 1120 PAC 3160	 Discussion
0104	Siv Lie MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 15) SQH 1120 PAC 1809	 Discussion
0105	Siv Lie MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 15) SQH 1120 PAC 1809	 Discussion
0106	Siv Lie MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 15) SQH 1120 PAC 2160	 Discussion

ANTH310 **Method & Theory in Medical Anthropology and Global Health**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP, DVUP

Prerequisite: ANTH210. Jointly offered with ANTH665. Credit only granted for: ANTH310, ANTH465, or ANTH665. Formerly: ANTH465.

Provides a critical perspective to global health that encompasses key political, economic, and cultural factors associated with the nature and magnitude of global health issues such as HIV/AIDS, tuberculosis and malaria, paying particular attention to how poverty and inequalities within and between societies has accelerated current global health challenges. Introduces students to how medical anthropologists have contributed to the debates surrounding the globalization of health.

Restriction: Must be in Anthropology program; or permission of BSOS Anthropology department.

0101	Laura Gilchrest MW 2:00pm - 3:15pm	Seats (Total: 30) ONLINE

ANTH329T **Special Topics in Archaeology; The Politics of the Past: Contemporary Israel and the Study of Archaeology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special Topics in Archaeology

Cross-listing with ISRL329T. Credit only granted for ISRL329T or ANTH329T. Archaeology is not just the study of the past. It is a story of people long forgotten. Over the last 150 years, archaeology in Israel has gone from being a quest to determine the historical accuracy of the Bible to a mission to establish Israel s national identity and in the process, justify West Bank settlements, and support a multi-million-dollar industry in religious tourism. Archaeological discoveries in Israel make international news, but, at home, they are often celebrated as the ultimate proof of primacy in the land. Close attention to archaeological discoveries in light of present-day politics and culture provides an opportunity to think deeply about contemporary Israeli politics, identity, and society.

0101	Sandra Scham	Seats (Total: 35)
	MW 2:00pm - 3:15pm	SQH 1103

ANTH341 **Introduction to Zooarchaeology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Credit only granted for: ANTH298D, ANTH641 or ANTH341. Formerly: ANTH298D.

Zooarchaeology is the study of animal remains, especially bones, from archaeological contexts. This course will address both methodology as well as many of the main issues in contemporary zooarchaeology. Zooarchaeology stands at the intersection of a number of social and biological sciences, such as Biology, Osteology, Ecology, History, Anthropology and Economics. We will discuss basic animal osteology and the concepts and practices behind the identification of animal remains from archaeological contexts. We will cover the nature of the data in zooarchaeology, especially issues around using proxy data.

0101	George Hambrecht	Seats (Total: 10)
	TuTh 2:00pm - 3:15pm	TLF 0104B

ANTH358A **Undergraduate Teaching Assistant; Undergraduate Teaching Assistant in Archaeology**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Individual instruction course: contact department or instructor to obtain section and index numbers.

Contact department for information to register for this course.

ANTH358B **Undergraduate Teaching Assistant; Undergraduate Teaching Assistant in Bio-Anthropology**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Individual instruction course: contact department or instructor to obtain section and index numbers.

Contact department for information to register for this course.

ANTH358C **Undergraduate Teaching Assistant; Undergraduate Teaching Assistant in Cultural Anthropology**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Individual instruction course: contact department or instructor to obtain section and index numbers.

Contact department for information to register for this course.

ANTH360 **Method and Theory in Sociocultural Anthropology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANTH260. Restriction: Must be in Anthropology program; or permission of BSOS-Anthropology department.

Theoretical approaches and research methods in sociocultural anthropology. Emphasis on current debates, new directions, and their historical antecedents.

0101	Andrea Lopez	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	SQH 1123

ANTH386 **Experiential Learning**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail

Recommended: Completion of advanced courses in relevant subfield of anthropology recommended. Restriction: Permission of BSOS-Anthropology department; and junior standing or higher; and must be in Anthropology program.

Contact department for information to register for this course.

ANTH398A **Independent Study; Research Problems**

(Perm req)

Credits: 1-3 Grading Method: Regular

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398B **Independent Study; Modern Tribes of Rome**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398C **Independent Study; The Mediterranean World**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398E **Independent Study; Bodies and Burials**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398H **Independent Study; Social Anthropology of Britain**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398I **Independent Study; Great Kingdoms of Ancient Near East**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398L **Independent Study; Social Anthropology of Britain**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398N **Independent Study; Career Development for Anthropology Majors**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Independent interdisciplinary research and reading in specific areas of anthropology.

0101	Erik Hanson	Seats (Total: 15)
	Th 3:30pm - 4:45pm	WDS 1114

ANTH411 **Anthropology of Immigration and Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Jointly offered with: ANTH611. Credit only granted for: ANTH411 or ANTH611.

The United Nations estimates that some 230 million people around the world are migrants who live outside their country of birth. This course focuses on these migrant populations, considering the implications of movement across borders and settlement in new societies on their health and well-being. We will investigate the social, political, and economic structures that shape disease and illness and produce differential access to health care for migrants. Within that context, we will explore the health effects of migration itself and particular health conditions from which migrants suffer. We will also examine how migrants interface with differently configured health care systems as well as strategies they and their advocates use to promote health and well-being.

0101	Christina Getrich	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	WDS 1114

ANTH416 **Anthropology of Global Violence**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Jointly offered with ANTH616. Credit only granted for: ANTH468O, ANTH66 8O, ANTH416 or ANTH616. Formerly: ANTH468O.

An examination of anthropological approaches to the study of violence, drawing from key texts to analyze how violence operates along a continuum: from routine, sometimes invisible forms of violence embedded in everyday life, to more overt and exceptional forms. Consideration of the role of ethnography in elucidating both the subjective experiences of violence and the ways in which violence is embedded in institutions, structures, and global political-economic processes. Analysis of the specific relationships between violence, health, mental health, and trauma in local and global contexts.

0101	Andrea Lopez	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	SQH 1123

ANTH464 **Anthropology of Cultural Heritage**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: ANTH260. Jointly offered with ANTH664. Credit only grant ed for: ANTH469T, ANTH689T, ANTH464, ANTH664. Formerly: ANTH469T.

A global exploration of how the past is remade in the present. Covers the breadth of scope and specific interventions of heritage practice at the global scale, including the social, political, economic, and ethical dimensions of cultural heritage.

0101	Kathryn Lafrenz Samuels	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	ONLINE

ANTH467 **Researching Environment and Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Recommended: ANTH322, ANTH360, ENSP101, or ENSP102.

In this applied course, students use mixed methods to research a locally-based, environmental sustainability issue. Classroom time will be split between seminar discussions of theory, methods, and relevant case studies, and lab work focused on project development, data analysis, and report write up. Students are expected to spend additional time outside class on data collection, analysis, and writing

0101	L Jen Shaffer	Seats (Total: 20)
	Th 2:00pm - 4:45pm	JMZ 0120

ANTH469J **Advanced Special Topics in Cultural Anthropology; Disaster Recovery in Japan**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Upper level cultural anthropology courses on varying topics derived from new interests of the faculty or the specialties of visiting scholars.

Contact department for information to register for this course.

ANTH476 **Senior Research**

(Perm req)

Credits: 3-4 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Anthropology program. Credit only granted for: ANTH476 or ANTH486.

Capstone course in which students pursue independent research into a current problem in anthropology, selected with assistance of a committee of faculty. Research leads to the writing of a senior thesis in anthropology.

Contact department for information to register for this course.

ANTH477 **Senior Thesis**

(Perm req)

Credits: 3-4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANTH476. Restriction: Permission of BSOS-Anthropology department; and must be in Anthropology program. Credit only granted for: ANTH477 or ANTH487.

Capstone course in which students write a senior thesis on independent research into a current problem in anthropology. The thesis is defined before a committee of faculty.

Contact department for information to register for this course.

ANTH481 **Environmental Ethnographies of Asia**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Credit only granted for: ANTH481 or ANTH681.

Examines social and ecological environments in Asia through the lens of classic and contemporary ethnographies from across the continent. Considers how cultural, political and economic dynamics interact with ecological systems in both recurring and unexpected ways. Ethnographies include case studies of global commodity chains, technoscientific management, borders and migration, conservation, and local knowledge as they intersect with changing environments.

0101	Madeline Brown	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	WDS 0104

ANTH485 **Honors Research Preparation**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Permission of BSOS-Anthropology department; and must be in Anthropology program; and must be admitted to University Honors Program or Anthropology Honors Program.

Honors Research Preparation is an independent study course during which the Honors candidate will work with their Honors Thesis Advisor to establish not only the structure of the thesis and timeline, but also the formation of Thesis Review Committee.

Contact department for information to register for this course.

ANTH486 **Honors Research**

(Perm req)

Credits: 3-4 Grading Method: Regular

Restriction: Permission of BSOS-Anthropology department; and must be in Anthropology program; and must be admitted to University Honors Program or Anthropology Honors Program. Credit only granted for: ANTH486 or ANTH476.

Capstone course in which students pursue independent research into a current problem in anthropology, selected with assistance of a committee of faculty. Research leads to the writing of an honors thesis in anthropology.

Contact department for information to register for this course.

ANTH487 **Honors Thesis**

(Perm req)

Credits: 3-4 Grading Method: Regular

Prerequisite: ANTH486. Restriction: Permission of BSOS-Anthropology department; and must be in Anthropology program; and must be admitted to University Honors Program or Anthropology Honors Program. Credit only granted for: ANTH487 or ANTH477.

Capstone course in which students write a thesis on the results of independent research into a current problem in anthropology.

Contact department for information to register for this course.

ANTH611 **Anthropology of Immigration and Health**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Jointly offered with: ANTH411. Credit only granted for: ANTH411 or ANTH611.

The United Nations estimates that some 230 million people around the world are migrants who live outside their country of birth. This course focuses on these migrant populations, considering the implications of movement across borders and settlement in new societies on their health and well-being. We will investigate the social, political, and economic structures that shape disease and illness and produce differential access to health care for migrants. Within that context, we will explore the health effects of migration itself and particular health conditions from which migrants suffer. We will also examine how migrants interface with differently configured health care systems as well as strategies they and their advocates use to promote health and well-being.

0101	Christina Getrich	Seats (Total: 10)
	TuTh 11:00am - 12:15pm	WDS 1114

ANTH616 **Anthropology of Global Violence**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: ANTH416 or ANTH616.

An examination of anthropological approaches to the study of violence, drawing from key texts to analyze how violence operates along a continuum: from routine, sometimes invisible forms of violence embedded in everyday life, to more overt and exceptional forms. Consideration of the role of ethnography in elucidating both the subjective experiences of violence and the ways in which violence is embedded in institutions, structures, and global political-economic processes. Analysis of the specific relationships between violence, health, mental health, and trauma in local and global contexts.

0101	Andrea Lopez	Seats (Total: 5)
	TuTh 12:30pm - 1:45pm	SQH 1123

ANTH630 **Quantification and Statistics in Applied Anthropology**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in one of the following programs (Anthropology (Doctoral); Anthropology (Master's)).

An intensive overview of key quantitative and statistical approaches used by social scientists in applied ad policy research. This includes nonparametric and parametric statistical approaches. Students utilize statistical software and analyze existing and student-created databases. Anthropological case studies are emphasized.

0101	Madeline Brown	Seats (Total: 20)
	Th 4:00pm - 6:45pm	WDS 1131

ANTH641 **Introduction to Zooarchaeology**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Jointly offered with ANTH341. Credit only granted for: ANTH298D, ANTH34 1 or ANTH641.

Zooarchaeology is the study of animal remains, especially bones, from archaeological contexts. This course will address both methodology as well as many of the main issues in contemporary zooarchaeology. Zooarchaeology stands at the intersection of a number of social and biological sciences, such as Biology, Osteology, Ecology, History, Anthropology and Economics. We will discuss basic animal osteology and the concepts and practices behind the identification of animal remains from archaeological contexts. We will cover the nature of the data in zooarchaeology, especially issues around using proxy data.

0101	George Hambrecht	Seats (Total: 5)
	TuTh 2:00pm - 3:15pm	TLF 0104B

ANTH655 **Introduction to Museum Scholarship**

Credits: 3

Grading Method: Regular, Audit

Cross-listed with: AMST655, HIST610, INST653. Credit only granted for: AMST655, ANTH655, HIST610, INST728T or INST653.

Provides students a basic understanding of museums as cultural and intellectual institutions. Topics include the historical development of museums, museums as resources for scholarly study, and the museum exhibition as medium for presentation of scholarship.

0101	Lesley Langa	Seats (Total: 15)	
	Tu 4:00pm - 5:45pm	ONLINE	
	Class time/details on ELMs	ONLINE	Discussion

ANTH664 **Anthropology of Cultural Heritage**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: ANTH469T, ANTH689T, ANTH464 or ANTH664. Formerly: ANTH689T.

A global exploration of how the past is remade in the present. Covers the breadth of scope and specific interventions of heritage practice at the global scale, including the social, political, economic, and ethical dimensions of cultural heritage.

0101	Kathryn Lafrenz Samuels	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	ONLINE

ANTH665 **Method & Theory in Medical Anthropology and Global Health**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: ANTH310, ANTH465 or ANTH665.

Provides a critical perspective to global health that encompasses key political, economic, and cultural factors associated with the nature and magnitude of global health issues such as HIV/AIDS, tuberculosis and malaria, paying particular attention to how poverty and inequalities within and between societies has accelerated current global health challenges. Introduces students to how medical anthropologists have contributed to the debates surrounding the globalization of health.

0101	Laura Gilchrest	Seats (Total: 5)
	MW 2:00pm - 3:15pm	ONLINE

ANTH667 **Researching Environment and Culture**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: ANTH467, ANTH667, ANTH468O, ANTH688O. Formerly: ANTH668O.

In this applied course, students use mixed methods to research a locally-based, environmental sustainability issue. Classroom time will be split between seminar discussions of theory, methods, and relevant case studies, and lab work focused on project development, data analysis, and report write up. Students are expected to spend additional time outside class on data collection, analysis, and writing

0101	L Jen Shaffer	Seats (Total: 4)
	Th 2:00pm - 4:45pm	JMZ 0120

ANTH681 **Environmental Ethnographies of Asia**

Credits: 3 Grading Method: Regular, Audit

Jointly offered with: ANTH481. Credit only granted for: ANTH481 or ANTH681.

Examines social and ecological environments in Asia through the lens of classic and contemporary ethnographies from across the continent. Considers how cultural, political and economic dynamics interact with ecological systems in both recurring and unexpected ways. Ethnographies include case studies of global commodity chains, technoscientific management, borders and migration, conservation, and local knowledge as they intersect with changing environments.

0101	Madeline Brown	Seats (Total: 10)
	TuTh 2:00pm - 3:15pm	WDS 0104

ANTH688A **Current Developments in Anthropology**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Detailed investigation of a current problem or research technique, the topic to be chosen in accordance with faculty interests and student needs.

Contact department for information to register for this course.

ANTH689A **Special Problems in Anthropology**

(Perm req)

Credits: 1-6 Grading Method: Regular

Contact department for information to register for this course.

ANTH701 **Anthropology Internship Preparation**

Credits: 3 Grading Method: Regular, Audit

Preparation for internship includes practicum training in development, presentation and evaluation of position papers, proposals and work plans; literature search and use of secondary data sources in decision making the effect cultural analysis and resource management; ethics and professional development for work in non-academic settings.

Contact department for information to register for this course.

ANTH712 **Anthropology Internship Analysis**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: ANTH789.

The preparation and presentation of internship results, and the development of skills in report writing and presentation. Includes the completion of a professional quality report or publishable paper based on the internship experience.

Contact department for information to register for this course.

ANTH722 **Ecological Anthropology**

Credits: 3 Grading Method: Regular

Restriction: Must be in one of the following programs (Anthropology (Doctoral); Anthropology (Master's)). Credit only granted for: ANTH720 or ANTH722.

An overview of important approaches to ecological anthropology. Population, systems, community, political, behavioral and evolutionary ecology will be examined as they have been applied to a range of anthropological questions. Complexity theory (nonlinear dynamics) and topics in game theory will also be addressed. Students will map the field of ecological anthropology and to assess the strengths and weaknesses of contemporary approaches, methods and theories.

0101	L Jen Shaffer	Seats (Total: 20)
	M 1:00pm - 3:45pm	WDS 1131

ANTH740 **Theories of the Past and Accomplishments of Archaeology**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: ANTH689P or ANTH740. Formerly: ANTH689P.

The primary purpose is to highlight some of the key achievements made by archaeologists in informing questions of interest to society from 1850 on. Key achievements include how archaeologists understand elements of the past thought to be central to the development of modern socieity. A secondary purpose is to introduce students to the theories used to understand the place of the past in society and the function of answers to questions thought central to modern social life.

0101	Mark Leone	Seats (Total: 20)
	Tu 12:30pm - 3:15pm	LEF 1222

ANTH745 **International Heritage Management**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in the Cultural and Heritage Resource Management Program; or by permission of the Anthropology department.

An examination of international heritage management practices and global ethical and professional norms in order to contextualize domestic cultural resource management in the US. The survey will also explore the linkages and areas for growth between international and domestic heritage practice.

PLA1	Joshua Samuels	Seats (Total: 20)
	Meets February 28, 2022 - May 18, 2022	
	Class time/details on ELMs	ONLINE
	Must be in Cultural & Heritage Resource Management program. All other graduate students must request permission. Contact oes@umd.edu.	

ANTH746 **Applied Archaeological Theory**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in the Cultural and Heritage Resource Management Program; or by permission of the Anthropology department.

Does cultural and heritage resources management (CHRM) need theory? Can archeological theory help us understand CHRM conventions and configurations, and does CHRM have its own distinctive contribution to make to archaeological theory? This course explores these questions while surveying the key areas of theory that inform the work that CHRM practitioners do, and also the place of CHRM in cultural discourse.

PLA1	Matthew Palus	Seats (Total: 20)
	Meets February 28, 2022 - May 18, 2022	
	Class time/details on ELMs	ONLINE
	Must be in Cultural & Heritage Resource Management program. All other graduate students must request permission. Contact oes@umd.edu.	

ANTH788 **Internship Research**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit

This course augments ANTH 789 and is graded in conjunction with it.

Contact department for information to register for this course.

ANTH789 **Internship**

(Perm req)

Credits: 3-6

Grading Method: Regular, Audit

Individual instruction course supervised by a department faculty member.

Contact department for information to register for this course.

ANTH799 **Master's Thesis Research; Cultural and Heritage Resource Management Thesis**

Credits: 1-6

Grading Method: Sat-Fail

PLA1	Matthew Palus	Seats (Total: 20)
	Meets February 28, 2022 - May 18, 2022	
	Class time/details on ELMs	ONLINE
	Must be in Cultural & Heritage Resource Management Program. For permission to enroll, must be admitted into a term-based calendar graduate program. Contact oes@umd.edu.	
PLA2	Matthew Palus	Seats (Total: 20)
	Meets February 28, 2022 - May 18, 2022	
	Class time/details on ELMs	ONLINE
	Must be in Cultural & Heritage Resource Management Program. For permission to enroll, must be admitted into a term-based calendar graduate program. Contact oes@umd.edu.	

ANTH856 **Museum Research Seminar**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: AMST655, ANTH655, or HIST610. Cross-listed with: AMST856, HIST810, INST786. Credit only granted for: AMST856, ANTH856, HIST810, INST728U or INST786.

A research seminar focusing on the practice and presentation of cultural and historical scholarship in museums and historical sites. Students will complete an original research project on the challenges and opportunities of public exhibition and interpretation of cultural and historical research.

Additional Note: Cross-listed with ANTH856, HIST810, INST728U. For the Spring 2101 semester, Credit only granted for: AMST856, ANTH856, HIST810 OR INST728U.

0101	Mary Sies W 4:00pm - 5:45pm Class time/details on ELMs	Seats (Total: 15) ONLINE ONLINE	 Discussion

ANTH857 **Museum Scholarship Practicum**

(Perm req)

Credits: 3-6 Grading Method: Regular

Prerequisite: AMST856, ANTH856, or HIST810. Restriction: Permission of Museum Scholarship Program required. Cross-listed with: AMST857, HIST811, INST787. Credit only granted for: AMST857, ANTH857, HIST811, INST728I or INST787.

Students devise and carry out a research program using the collections at the Smithsonian Institution or some other cooperating museum, working under joint supervision of a museum professional and a university faculty member.

0101	Paul Shackel Contact instructor or department for details.	Seats (Total: 2)
0301	Perla Guerrero Contact instructor or department for details.	Seats (Total: 2)
0401	Mary Sies Contact instructor or department for details.	Seats (Total: 4)
IM01	Paul Jaeger Contact instructor or department for details.	Seats (Total: 6)

ANTH898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

ANTH899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

AOSC Atmospheric and Oceanic Science Spring 2022

AOSC123 **Causes and Consequences of Global Change**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: PS General Education: DSNS, SCIS

Cross-listed with: GEOL123. Credit only granted for: AOSC123, GEOG123, GEOL123, or METO123.

Study of the major components of Earth's climate system and climate change history. Discussion of 21st century climate change prediction, mitigation and adaptation efforts.

0101	Rachel Pinker MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 30) ATL 2324 EGR 2154	Discussion
0102	Rachel Pinker MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 30) ATL 2324 EGR 2154	Discussion
0103	Rachel Pinker MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 30) ATL 2324 EGR 2154	Discussion

AOSC200 **Weather and Climate**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: PS	General Education: DSNL (if taken with AOSC201), DSNS, SCIS

Prerequisite: MATH107, MATH110, or MATH115. Recommended: Concurrent enrollment in AOSC201.

What are weather and climate? Most people think they know but if you ask people to explain the differences and similarities you're bound to get a range of answers. Weather affects not just our daily activities but other important aspects of society such as transportation, commerce, security and agriculture. Most people understand what weather is to some extent. Climate and climate change are concepts that evoke strong emotional responses from people but are less well understood. In this class, students examine fundamental issues such as the greenhouse effect, severe weather, and global weather patterns and how they relate to a changing climate. Instruction in the lectures will provide the basic knowledge needed to understand these issues. In the discussion sections, students will be divided into groups to address the implications of these topics through group projects.

A Marquee Science and Technology Course designed for Non-Science Majors: http://www.marqueecourses.umd.edu/ Click here for more Marquee course information.*

0101	Timothy Canty TuTh 12:30pm - 1:45pm W 1:00pm - 1:50pm	Seats (Total: 30) ATL 2324 ATL 1114	Discussion
0102	Timothy Canty TuTh 12:30pm - 1:45pm W 2:00pm - 2:50pm	Seats (Total: 30) ATL 2324 ATL 2428	Discussion

0103	Timothy Canty TuTh 12:30pm - 1:45pm W 3:00pm - 3:50pm	Seats (Total: 30) ATL 2324 ATL 1114	Discussion
0104	Timothy Canty TuTh 12:30pm - 1:45pm W 1:00pm - 1:50pm	Seats (Total: 30) ATL 2324 JMP 1109	Discussion
0201	Jeffrey Henrikson TuTh 2:00pm - 3:15pm W 2:00pm - 2:50pm	Seats (Total: 30) ATL 2324 CHE 2118	Discussion
0202	Jeffrey Henrikson TuTh 2:00pm - 3:15pm W 3:00pm - 3:50pm	Seats (Total: 30) ATL 2324 CHM 1224	Discussion
0203	Jeffrey Henrikson TuTh 2:00pm - 3:15pm M 1:00pm - 1:50pm	Seats (Total: 30) ATL 2324 EGR 0135	Discussion
0204	Jeffrey Henrikson TuTh 2:00pm - 3:15pm M 2:00pm - 2:50pm	Seats (Total: 30) ATL 2324 JMP 1109	Discussion

AOSC201 **Weather and Climate Laboratory**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit | CORE: PL

Corequisite: AOSC200. Formerly: METO201.

Laboratory exercises to supplement AOSC200, including weather observations, weather map analysis, use of the Internet, forecasting practice and climate modeling.

Students must pay a $60.00 lab materials fee.

0101	Christopher Smith M 2:00pm - 3:50pm	Seats (Total: 26) ATL 3426	Lab
0102	Jhayron Perez Carrasquilla W 2:00pm - 3:50pm	Seats (Total: 26) ATL 3426	Lab

0103	Natalia Roldan Henao F 10:00am - 12:00pm	Seats (Total: 26) ATL 3426	Lab
0104	Christopher Smith M 12:00pm - 1:50pm	Seats (Total: 26) ATL 3426	Lab
0105	Akarsh Ralhan F 12:00pm - 1:50pm	Seats (Total: 26) ATL 3426	Lab
0106	Akarsh Ralhan F 2:00pm - 3:50pm	Seats (Total: 26) ATL 3426	Lab
0107	Natalia Roldan Henao Tu 3:30pm - 5:20pm	Seats (Total: 26) ATL 3426	Lab
0108	Jhayron Perez Carrasquilla W 12:00pm - 1:50pm	Seats (Total: 26) ATL 3426	Lab

AOSC247 **Scientific Programming: Python**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH140. Recommended: Familiarity with basic descriptive statistics. Credit only granted for: AOSC458J, AOSC247 or CMSC131. Formerly: AOSC458J.

A comprehensive introduction to scientific computation and visualization techniques with Python applied to data intensive questions in the Natural Sciences. The class emphasizes real-world applications, providing students with essential hands-on experience using Python for data analysis and visualization, developing analytical skills for observational and modeling data, and performing virtual experiments to distinguish data contributing factors. Students will gain an understanding of the scientific data issues including: signal vs noise, trend vs periodicity, mean vs extreme changes, and accuracy vs uncertainty. Students will gain extensive experience using command line linux. Skills including local and remote file transfer and synchronization, file and directory permission, utilities for diagnosing performance issues, and data compression.

Students must pay a $60.00 lab materials fee.

0101	Jeffrey Henrikson MW 5:00pm - 6:15pm	Seats (Total: 50) ATL 2428	

AOSC399 **Independent Study in Academic Peer Mentoring**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

Earn academic credit for the time spent supporting an AOSC course in the Academic Peer Mentoring Program (AMP).

Contact department for information to register for this course.

AOSC401 **Climate Dynamics and Earth System Science**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: AOSC400 or AOSC200; and MATH141; and (PHYS161 or PHYS171). Or permission of instructor.

Introduction of the earth and global climate systems and their major components: atmosphere, land, ocean, biosphere and cryosphere. Key processes governing the function of the earth's climate: Global energy balance and water cycle, climate dynamics (general circulation of the atmosphere and ocean) and climate physics (aerosol, cloud and rain), as well as climate variability and climate changes. Phenomena resulting from this coupled system including El Nino-Southern Oscillation, monsoons, and the hydrological cycle will be discussed, with a focus on how the Earth System responds to global warming.

0101	Zhanqing Li	Seats (Total: 25)
	MWF 11:00am - 11:50am	ATL 2428

AOSC421 **Oceanography of the Chesapeake and Mid-Atlantic**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

This course introduces the oceanography of the Chesapeake Bay and Mid-Atlantic bight, with a focus on physical oceanographic processes, the impact of ocean circulation on the coastal and estuarine environment, and the future of our coast in a changing climate. This will include major topics in coastal oceanography such as the shelf circulation, waves and tides, estuarine circulation, and sea-level rise. In addition to lecture, students will read recent selections from the scientific literature, develop a report on an oceanographic issue relevant to Maryland coastal waters, and take part in a research cruise on the Chesapeake Bay.

0101	Jacob Wenegrat	Seats (Total: 30)
	MWF 1:00pm - 1:50pm	ATL 2416

AOSC424 **Remote Sensing of the Atmosphere and Ocean**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (PHYS171, PHYS161, MATH141); or permission of instructor.

Many of the properties of the atmosphere, ocean, and land surface are most easily observed from satellite remote sensing. This course will provide students with a hands-on introduction to a variety of passive and active sensing techniques and sensors observing our changing environment. Topics include: orbital dynamics and electromagnetic properties of the atmosphere and surface; atmospheric emission characteristics and scattering; chemical composition and spectroscopy; temperature retrievals; detection and retrieval of aerosol, cloud and rain; ocean surface properties; sea surface temperature and color; active sensing of wind stress, sea level, and internal waves; time-dependent gravity; properties of vegetation and ice.

0101	Zhanqing Li TuTh 9:30am - 10:45am	Seats (Total: 20) ATL 2428

AOSC432 **Dynamics of the Atmosphere and Ocean**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: AOSC431. Corequisite: MATH246. Credit only granted for: AOSC432, METO432, or AOSC632. Formerly: METO432.

Equations of motion and their approximation, scale analysis for the atmosphere and the ocean. Conservation properties. Fluid motion in the atmosphere and oceans. Geostrophic/balanced and ageostrphic/unbalanced motion. Circulation, vorticity, and potential vorticity. Introduction to the boundary layer.

0101	Kayo Ide TuTh 12:30pm - 1:45pm	Seats (Total: 20) ATL 2416
AM01	Kayo Ide TuTh 12:30pm - 1:45pm	Seats (Total: 0) Location: TBA

AOSC433 **Atmospheric Chemistry and Climate**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM131, CHEM135, or CHEM146. And MATH241; or permission of CMNS-Atmospheric & Oceanic Science department; or permission of CMNS-Chemistry & Biochemistry department. Cross-listed with CHEM433. Credit only granted for: AOSC433, AOSC633, CHEM433, or CHEM633. Formerly: AOSC434.

The effects of human activity on atmospheric composition, focused on global warming, the carbon cycle, air pollution, and the ozone layer. Fundamentals of atmosphereic chemistry (spectroscopy, kinetics, isotopic analysis, and biogeochemical cycles) are related to the modern understanding of climate change, air quality, and ozone depletion, based on resources such as satellite missions, field campaigns, and scientific assessments published by international agencies. We also examine how society's energy needs could be met, in the future, in a manner with less impact on atmospheric composition than the present heavy reliance on combusion of fossil fuels.

0101	Ross Salawitch TuTh 2:00pm - 3:15pm	Seats (Total: 40) ATL 2428

AOSC447 **Machine Learning in Earth Science**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Must have completed MATH140.

A comprehensive introductory course designed to prepare undergraduate and graduate students for applying machine learning techniques to solve real-world problems in Earth science. It emphasizes practical solution implementation, providing students with essential hands-on experience using the most popular open-source analytics tools based on Python, a general-purpose programming language. The course works through all steps in machine learning, from problem specification, data analytics to analytical solution, and applies advanced statistical and analytical algorithms to uncover hidden data relationships and transform them into predictive understanding or decision support. The topics covered include: Python programming, SciPy and Scikit-learn utility, data engineering, visualization, classifiers, regression models, canonical correlation analysis, structural equation models, decision trees, random forests, boosting machines, support vector machines, clustering, dimensionality reduction, principal component analysis, and neural networks.

0101	Xin-Zhong Liang TuTh 11:00am - 12:15pm	Seats (Total: 15) ATL 1410
AM01	Xin-Zhong Liang TuTh 11:00am - 12:15pm	Seats (Total: 0) ATL 1410

AOSC472 **Mesoscale Meteorology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: AOSC432, AOSC600, AOSC610, or AOSC470. Restriction: Non-degree-seeking students require the permission of the instructor. Jointly offered with AOSC602. Credit only granted for: AOSC472 or AOSC6 02.

Survey a broad range of mesoscale meteorological features with emphasis on convection and associated phenomena. Define the mesoscale and understand its underlying principles; Introduce non-convective circulations and their importance for weather forecasting; Understand the precursors and occurrence of deep moist convection.

0101	Jonathan Poterjoy	Seats (Total: 10)
	MWF 10:00am - 10:50am	ATL 2416

AOSC475 **Carbon Cycle and Climate: Past, Present, and Future**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Jointly offered with AOSC675. Credit only granted for: AOSC475 or AOSC6 75.

The fundamentals of the Earth's carbon cycle, a key biogeochemical cycl that controls Earth's climate and life. The changing characteristics of the carbon cycle on several timescales, ranging from geological, interannual, and the more recent anthropogenic influences on carbon cycle and climate. The carbon cycle in the atmosphere, land, ocean, and the biosphere. The underlying human activities such as fossil fuel burning and deforestation that are responsible for the increase in the atmosphere CO2 and our future options in dealing with the carbon problem such as alternative energy and carbon sequestration.

0101	Ning Zeng	Seats (Total: 15)
	TuTh 9:30am - 10:45am	ATL 2416

AOSC494 **Atmospheric and Oceanic Science Seminar**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in AOSC431 and AOSC432. Restriction: Permission of the Atmospheric and Oceanic Science Department.

Exposure to a wide range of contemporary topics in atmospheric, oceanic, and climate sciences, to foster research interests and promote critical thinking through the weekly AOSC departmental seminar series.

0101	Sumant Nigam	Seats (Total: 20)
	Th 3:30pm - 4:50pm	ATL 2400

AOSC498 **Senior Research Project II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The project will be based on the research or development plan created in AOSC493. It may be completed with the approval of a faculty advisor in conjunction with an internship. Final written thesis and oral defense will be expected.

Contact department for information to register for this course.

AOSC499 **Special Problems in Atmospheric Science**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Research or special study in the field of meteorology and the atmospheric and oceanic sciences.

Contact department for information to register for this course.

AOSC602 **Mesoscale Meteorology**

Credits: 3 Grading Method: Regular, Audit

Survey a broad range of mesoscale meteorological features with emphasis on convection and associated phenomena. Define the mesoscale and understand its underlying principles; Introduce non-convective circulations and their importance for weather forecasting; Understand the precursors and occurrence of deep moist convection.

0101	Jonathan Poterjoy MWF 10:00am - 10:50am	Seats (Total: 15) ATL 2416
AM01	Jonathan Poterjoy MWF 10:00am - 10:50am	Seats (Total: 0) ATL 2416

AOSC611 **Dynamics of the Atmosphere and Oceans II**

Credits: 3 Grading Method: Regular, Audit

Formerly: METO611.

Waves and instabilities in the atmosphere and the ocean. Gravity, Rossby, coastal and equatorial waves. Flow over topography. Dynamic instabilities including barotropic, baroclinic, inertial, and instabilities of the coupled ocean-atmosphere system. Stationary waves and multiple equilibria.

0101	James Carton MWF 11:00am - 11:50am	Seats (Total: 25) ONLINE
AM01	James Carton MWF 11:00am - 11:50am	Seats (Total: 0) ONLINE

AOSC617 **Atmospheric and Oceanic Climate**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: AOSC610; or permission of instructor. Formerly: METO617.

The general circulation of the atmosphere and oceans, historical perspective, observations, and conceptual models; wind-driven and thermohaline circulation of the oceans. Seasonal cycle and monsoon circulations; interannual to interdecadal climate variability; climate change.

0101	Sumant Nigam TuTh 11:00am - 12:15pm	Seats (Total: 20) ATL 2416
AM01	Sumant Nigam TuTh 11:00am - 12:15pm	Seats (Total: 0) ATL 2416

AOSC621 **Physics and Chemistry of the Atmosphere II**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH462; or students who have taken courses with comparable content may contact the department. Formerly: METO621.

Spectroscopy; basic concepts in radiative transfer and atmospheric chemistry; photolysis rates for atmospheric molecules.

0101	Xin-Zhong Liang TuTh 2:00pm - 3:15pm	Seats (Total: 25) ATL 2416
AM01	Xin-Zhong Liang TuTh 2:00pm - 3:15pm	Seats (Total: 0) ATL 2416

AOSC625 **Remote Inference of Atmospheric Properties by Satellite**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Fundamentals of radiative transfer concepts, theories and models pertinent to remote sensing. Satellite platforms, sensors and systems used for operation and research in atmospheric remote sensing. Concepts and technologies of passive and active remote sensing. Remote sensing methods and products of atmospheric constituents, aerosol, cloud, precipitation, temperature and water vapor profiles, precipitation in liquid and ice forms, radiation budget, and remote sensing application in data assimilation for numerical weather forecast (NWP); use of atmospheric remote sensing products for development of global climate model (GCM).

0101	Zhanqing Li TuTh 9:30am - 10:45am	Seats (Total: 15) ATL 2428
AM01	Zhanqing Li TuTh 9:30am - 10:45am	Seats (Total: 1) ATL 2428

AOSC633 **Atmospheric Chemistry and Climate**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: CHEM131, CHEM135, or CHEM146. Cross-listed with: CHEM633. Credit only granted for: AOSC433, AOSC633, CHEM433, or CHEM633.

The effects of human activity on atmospheric composition, focused on global warming, the carbon cycle, air pollution, and the ozone layer. Fundamentals of atmosphereic chemistry (spectroscopy, kinetics, isotopic analysis, and biogeochemical cycles) are related to the modern understanding of climate change, air quality, and ozone depletion, based on resources such as satellite missions, field campaigns, and scientific assessments published by international agencies. We also examine how society's energy needs could be met, in the future, in a manner with less impact on atmospheric composition than the present heavy reliance on combusion of fossil fuels.

0101	Ross Salawitch TuTh 2:00pm - 3:15pm	Seats (Total: 8) ATL 2428
AM01	Ross Salawitch TuTh 2:00pm - 3:15pm	Seats (Total: 0) ATL 2428

AOSC647 **Machine Learning in Earth Science**

Credits: 3 Grading Method: Regular

Prerequisite: MATH140. Jointly offered with: AOSC447. Credit only granted for: AOSC447 or AOSC647.

A comprehensive introductory course designed to prepare undergraduate and graduate students for applying machine learning techniques to solve real-world problems in Earth science. It emphasizes practical solution implementation, providing students with essential hands-on experience using the most popular open-source analytics tools based on Python, a general-purpose programming language. The course works through all steps in machine learning, from problem specification, data analytics to analytical solution, and applies advanced statistical and analytical algorithms to uncover hidden data relationships and transform them into predictive understanding or decision support. The topics covered include: Python programming, SciPy and Scikit-learn utility, data engineering, visualization, classifiers, regression models, canonical correlation analysis, structural equation models, decision trees, random forests, boosting machines, support vector machines, clustering, dimensionality reduction, principal component analysis, and neural networks.

0101	Xin-Zhong Liang TuTh 11:00am - 12:15pm	Seats (Total: 15) ATL 1410
AM01	Xin-Zhong Liang TuTh 11:00am - 12:15pm	Seats (Total: 0) ATL 1410

AOSC675 **Carbon Cycle and Climate: Past, Present, and Future**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Jointly offered with AOSC475. Credit only granted for: AOSC475 or AOSC6 75.

The fundamentals of the Earth's carbon cycle, a key biogeochemical cycle that controls Earth's climate and life. The changing characteristics of the carbon cycle on several timescales, ranging from geological, interannual, and the more recent anthropogenic influences on carbon cycle and climate. The carbon cycle in the atmosphere, land, ocean, and the biosphere. The underlying human activities such as fossil fuel burning and deforestation that are responsible for the increase in the atmosphere CO2 and our future options in dealing with the carbon problem such as alternative energy and carbon sequestration.

0101	Ning Zeng TuTh 9:30am - 10:45am	Seats (Total: 10) ATL 2416
AM01	Ning Zeng TuTh 9:30am - 10:45am	Seats (Total: 0) ATL 2416

AOSC798 **Directed Graduate Research**

Credits: 1-3 Grading Method: Sat-Fail

Contact department for information to register for this course.

AOSC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

AOSC899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ARAB Arabic Spring 2022

ARAB101 **Elementary Arabic I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Introduction to modern standard Arabic in both its spoken and written form. Equal emphasis on all four skill areas: speaking, listening, reading, and writing.

Contact department for information to register for this course.

ARAB105 **Elementary Modern Standard Arabic III-IV**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARAB104; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a fluent/native speaker of Arabic.

Continuation of ARAB104, developing further linguistic proficiency in Standard Arabic, both written and formal spoken. Covers an extended range of situation-based texts and topics that build vocabulary, grammar, general communicative competence and cultural awareness.

0101	Ahmed Hanafy MWF 10:00am - 11:50am	Seats (Total: 15) HJP 2118
0201	Lutf Alkebsi MWF 12:00pm - 1:50pm	Seats (Total: 15) HJP 2118

ARAB205 **Intermediate Modern Standard Arabic II**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit CORE: HO

Prerequisite: ARAB204; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a fluent/native speaker of Arabic.

Continuation of ARAB204, with exposure to a wide range of Arabic texts from different domains. Focus on vocabulary, more complex grammatical forms, and a better understanding of the formal aspects of using MSA as well as the cultural aspects of using the language.

0101	Ahmed Hanafy MWF 12:00pm - 1:50pm	Seats (Total: 15) ONLINE
0201	Lutf Alkebsi MWF 10:00am - 11:50am	Seats (Total: 15) HJP 3142

ARAB207 **Egyptian Colloquial Arabic II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARAB206; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a fluent/native speaker of Arabic.

Further develops communicative skills and cultural knowledge in Egyptian Arabic, extending range of contexts and types of social interaction. Focuses on various aspects of Egyptian popular culture.

0101	Lutf Alkebsi TuTh 12:30pm - 1:45pm	Seats (Total: 15) ONLINE

ARAB305 **Advanced Modern Standard Arabic II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARAB304; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a fluent/native speaker of Arabic.

Further advanced grammar, reading, writing, speaking in Arabic; study of current issues within the Arab World.

0101	Peter Glanville TuTh 2:00pm - 3:15pm	Seats (Total: 10) HJP 2118

ARAB341 **Filming War Zones: Representations of Wars in Iraq & Chechnya**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: CINE341. Credit only granted for: ARAB341, CINE341 or FILM341. Formerly: FILM341.

Comparative study of ideological and cultural discourses in war films covering military conflicts in Iraq and Chechnya in late 20th-early 21st centuries. Materials include American, Middle Eastern, and Russian feature films and documentaries; theories of propaganda, ideology and popular culture. Taught in English.

0101	Valerie Anishchenkova	Seats (Total: 25)
	MW 2:00pm - 3:15pm	HJP 2118

ARAB386 **Experiential Learning**

(Perm req)

Credits: 3-6

Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ARHU-School of Languages, Literatures, and Cultures department.

Pre-professional experience in research, analysis and writing in a work setting. Project proposal approved by faculty and internship sponsor. Junior standing.

Contact department for information to register for this course.

ARAB398I **Special Topics in Arabic Studies; Secrets and Mysteries of Arabic Grammar**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

In-depth study of a particular aspect of Arabic culture, literature, and language. Specific topic to be announced when offered. Taught in Arabic.

Prerequisite: ARAB204. In-depth examination and application of the grammar of Arabic, including the structure and function of the basic building blocks of the language, the case system, and more advanced structures characteristic of higher proficiency language. Taught in Arabic.

0101	Valerie Anishchenkova	Seats (Total: 15)
	MW 3:30pm - 4:45pm	HJP 2118

ARAB399 **Independent Study In Arabic**

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Research and writing or specific readings on a topic selected by the student and supervised by a faculty member on the Department of Arabic Studies. To be planned during semester preceding registration.

Contact department for information to register for this course.

ARAB399B **Independent Study In Arabic; Moroccan Arabic: Foundation**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Research and writing or specific readings on a topic selected by the student and supervised by a faculty member on the Department of Arabic Studies. To be planned during semester preceding registration.

Restriction: Must be a student in the Arabic Flagship Program.

0101	Ahmed Hanafy	Seats (Total: 5)
	Class time/details on ELMs	ONLINE

ARAB399C **Independent Study In Arabic; Moroccan Arabic: Daily Life**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Research and writing or specific readings on a topic selected by the student and supervised by a faculty member on the Department of Arabic Studies. To be planned during semester preceding registration.

Restriction: Must be a student in the Arabic Flagship Program.

0101	Ahmed Hanafy	Seats (Total: 5)
	Class time/details on ELMs	ONLINE

ARAB401 **Readings in Arabic Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARAB305; or permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Must not be a fluent/native speaker of Arabic.

A survey of Modern Arabic literature is given through a range of selected texts. Texts are studied as literature with constant reference to the social, cultural and political contexts in which they were written. Taught in Arabic.

0101	Anny Gaul	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	HJP 3142

ARAB499D **Special Topics in Arabic Studies; Gender and Difference in the Arab World**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

In-depth study of particular aspect of Arabic culture, literature and language. Specific topic to be announced when course is offered.

An intersectional approach to the subject of gender in the Arab- speaking world, drawing on both creative and scholarly texts. The course will introduce students to key topics and debates while exploring how gender intersects with other manifestations of power and difference. Taught in English.

0101	Anny Gaul TuTh 12:30pm - 1:45pm	Seats (Total: 15) HJP 2118

ARAB499L **Special Topics in Arabic Studies; Social Issues in Contemporary Arab Societies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

In-depth study of particular aspect of Arabic culture, literature and language. Specific topic to be announced when course is offered.

Prerequisite: ARAB305. Engages students with pressing social issues in the contemporary Arab world: including language use and social identity; youth unemployment; citizenship, discrimination, and social cohesion; and the relationship between religion and politics. Taught in Arabic.

0101	Peter Glanville TuTh 11:00am - 12:15pm	Seats (Total: 15) HJP 2118

ARCH Architecture Spring 2022

ARCH170 **Design Thinking and Architecture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HA General Education: DSHU

Examines conceptual, perceptual, behavioral, and technical aspects of the built environment, and methods of analysis, problem-solving, and design implementation.

0101	Sarah Bolivar W 9:00am - 9:50am Contact instructor or department for details. F 9:00am - 9:50am	Seats (Total: 19) TWS 0320 ASY 3217	Discussion
0102	Sarah Bolivar W 9:00am - 9:50am Contact instructor or department for details. F 9:00am - 9:50am	Seats (Total: 19) TWS 0320 ASY 3219	Discussion
0103	Sarah Bolivar W 9:00am - 9:50am Contact instructor or department for details. F 9:00am - 9:50am	Seats (Total: 19) TWS 0320 ASY 3221	Discussion

0104	Sarah Bolivar W 9:00am - 9:50am Contact instructor or department for details. F 9:00am - 9:50am	Seats (Total: 15) TWS 0320 ARC 1125	Discussion
0105	Sarah Bolivar W 9:00am - 9:50am Contact instructor or department for details. F 12:00pm - 12:50pm	Seats (Total: 19) TWS 0320 ARC 1123	Discussion
0106	Sarah Bolivar W 9:00am - 9:50am Contact instructor or department for details. F 12:00pm - 12:50pm	Seats (Total: 19) TWS 0320 ARC 1127	Discussion

ARCH200 **Design Media and Representation I**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major in ARCH-Architecture Program.

Study of architectural representation in physical and digital design media. Examine visual literacy and visual communications through applied drawing, modeling and visual making to explore the role of design media and representation in design and design thinking.

0101	Michael Abrams W 8:00am - 9:50am W 10:00am - 11:50am	Seats (Total: 10) Location: TBA Location: TBA	Discussion
0102	Michael Abrams W 8:00am - 9:50am W 12:00pm - 1:50pm	Seats (Total: 10) Location: TBA Location: TBA	Discussion
0103	Michael Abrams W 8:00am - 9:50am W 10:00am - 11:50am	Seats (Total: 10) Location: TBA Location: TBA	Discussion
0104	Michael Abrams W 8:00am - 9:50am W 12:00pm - 1:50pm	Seats (Total: 10) Location: TBA Location: TBA	Discussion

0105	Michael Abrams W 8:00am - 9:50am W 10:00am - 11:50am	Seats (Total: 10) Location: TBA Location: TBA	 Discussion
0106	Michael Abrams W 8:00am - 9:50am W 12:00pm - 1:50pm	Seats (Total: 10) Location: TBA Location: TBA	 Discussion
0107	Michael Abrams W 8:00am - 9:50am W 10:00am - 11:50am	Seats (Total: 10) Location: TBA Location: TBA	 Discussion
0108	Michael Abrams W 8:00am - 9:50am W 12:00pm - 1:50pm	Seats (Total: 10) Location: TBA Location: TBA	 Discussion

ARCH225 **History of World Architecture I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Pre-1500 World Architecture survey course - History of Architecture structured to develop critical thinking and visually literacy with regard to the worldwide legacy of design thinking and cultural production through architecture

0101	Joseph Williams TuTh 9:30am - 10:45am	Seats (Total: 125) Location: TBA

ARCH271 **People, Planet, and Profit: Building Sustainable Places**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Cross-listed with: RDEV250. Credit only granted for: ARCH271 or RDEV250.

An introduction to the four disciplines represented in the School: architecture and urban design, community planning, historic preservation, and real estate development, that work to create a more sustainable environment for the future to create a more sustainable environment for the future using our interpretation of the quadruple bottom line: socio-cultural, economic, environmental, and design sustainability. Students will be provided with an understanding of the fundamental scholarship and processes of each of these disciplines and examine the intersections between them. Additionally, they will learn by applying the approaches of the four disciplines through a series of field studies.

Cross-listed with RDEV250. Credit granted for ARCH271 or RDEV250.

0101	Wayne Curtis	Seats (Total: 85)	
	TuTh 11:00am - 12:15pm	JMZ 0220	

ARCH272 **Sustainability at College Park**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNS, DSSP, SCIS

Explore the ways and the degrees to which University of Maryland, College Park campus master planning and operations incorporate principles of sustainability including smart growth, LEED and other building rating systems, higher education rating systems, sustainable agriculture and transportation planning. Among other subjects, students will learn about the Campus and the City of College Park and survey the relationship between local, national and global sustainability concerns. Students will learn about the University's Climate Action Plan and the roles, and extent to which, the UMD Office of Sustainability and other campus units are helping develop a carbon-neutral and resource-efficient campus infrastructure.

0101	Ralph Bennett	Seats (Total: 90)	
	Tu 5:00pm - 6:15pm	ARC 0204	
	Th 5:00pm - 6:15pm	ARC 0204	Discussion

ARCH386 **Experiential Learning**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Restriction: Must have learning proposal approved by faculty sponsor and student's internship sponsor; and sophomore standing or higher; and permission of ARCH-Architecture Program.

Learning experience tied to internship of specified duration with targeted learning outcomes.

0101	Kristen Stack	Seats (Total: 10)
	Class time/details on ELMs	ONLINE

ARCH400 **Architecture Design Studio I**

(Perm req)

Credits: 6 | Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major in ARCH-Architecture Program; and permission of ARCH-Architecture Program.

Introduction to architectural design with particular emphasis on conventions and principles of architecture, visual and verbal communication skills, formal analysis, design process, spatial composition, architectural promenade, basic program distribution, and elementary constructional and environmental responses.

0101	Michael Abrams	Seats (Total: 100)
	MWF 2:00pm - 6:00pm	Location: TBA

ARCH402 **Architecture Design Studio III**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: Minimum grade of C- in ARCH401. Restriction: Must be in Architecture (B.S.) program.

Architectural design studio with emphasis on building and facade typologies, the development of architectural promenade and sequence, public and/or civic infill buildings dependent upon the architectural promenade, and urban housing types of varying densities. The architect's obligations to urban context are explored in many dimensions including historical, typological, and physical.

0101	Brittany L Williams	Seats (Total: 80)
	MWF 2:00pm - 6:00pm	Location: TBA

ARCH405 **Graduate Architecture Design Studio II**

(Perm req)

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ARCH404. Restriction: Must be in Architecture (Master's) program.

Architectural design studio with emphasis on building and facade typologies, the development of architectural promenade and sequence, public and/or civic infill buildings dependent upon the architectural promenade, and urban housing types of varying densities. The architect's obligations to urban context are explored in many dimensions including historical, typological, and physical. Offered spring only.

0101	Marques King, Julie Gabrielli	Seats (Total: 14)
	MWF 2:00pm - 6:00pm	Location: TBA

ARCH407 **Graduate Architecture Design IV**

(Perm req)

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ARCH406. Restriction: Must be in Architecture (Master's) program.

Studio problems and theories concentrating on urbanism and urban design techniques. Issues and sites range from high-density urban in-fill to suburban and greenfield development in American and other contexts. Studio theories explore such topics as Contextualism, Neo-Traditional design, Transit Oriented Development, density, sustainable development, building typology, and street design.

A Fearless Ideas Course from the Academy for Innovation & Entrepreneurship (AIE): http://ter.ps/iamFEARLESS Click here for more information on the Fearless Ideas Courses.

0101	Michael Ezban MWF 2:00pm - 6:00pm	Seats (Total: 12) Location: TBA

ARCH408 **Special Topics Architecture Design Studio**

(Perm req)

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Design Studio course to examine topical problems in architecture and urban design.

0101	James Tilghman MWF 2:00pm - 6:00pm	Seats (Total: 15) Location: TBA
0102	Ronit Eisenbach TuTh 1:00pm - 6:00pm	Seats (Total: 15) Location: TBA

ARCH408F **Special Topics Architecture Design Studio; Advanced Topical Design Studio: Urban**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Design Studio course to examine topical problems in architecture and urban design.

Contact department for information to register for this course.

ARCH418A **Selected Topics in Architectural Technology; Carbon Neutral Development through Net Zero and Net Impact Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architectural Technology

0101	Ming Hu Th 2:00pm - 4:40pm	Seats (Total: 15) VMH 1101

ARCH419 **Independent Studies in Architectural Technology**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

Contact department for information to register for this course.

ARCH420 **History of American Architecture**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DSHS

Prerequisite: ARCH225 and ARCH226; or ARCH425 and ARCH426; or permission of the ARCH-Architecture program.

American architecture from the late 17th to the 21st century.

0101	Caroline Hickman TuTh 11:00am - 12:15pm	Seats (Total: 25) SQH 1123

ARCH423 **History of Roman Architecture**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARCH225 and ARCH226; or ARCH425 and ARCH426; or permission of the ARCH-Architecture Program.

Survey of Roman architecture from 500 B.C. To A.D. 325.

0101	Joseph Williams TuTh 12:30pm - 1:45pm	Seats (Total: 20) ARC 0204

ARCH425 **History of Architecture I**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ARCH-Architecture Program. Credit only granted for: ARCH225 or ARCH425. Additional information: Graduate architecture history course requires additional recitation section and additional coursework tied to survey lectures.

Pre-1500 World Architecture survey course - History of Architecture structured to develop critical thinking and visually literacy with regard to the worldwide legacy of design thinking and cultural production through architecture. Structured to nurture critical thinking and visually literacy with regard to the worldwide legacy of architecture. The work in the course will involve the evaluation of sources and arguments in reading architectural history. Architecture will be framed relative to ways of thinking, religious beliefs, cultural heritage, and cultural values.

0101	Joseph Williams TuTh 9:30am - 10:45am	Seats (Total: 10) JMZ 0122

ARCH427 **Theories of Architecture**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARCH426; or permission of ARCH-Architecture Program. Restriction: Must be in Architecture (B.S.) program.

Survey of architectural theories - theories of architectural design, representation and urban design from antiquity to the present day.

0101	Christian Calleri TuTh 7:00pm - 8:15pm	Seats (Total: 15) ARC 1127

ARCH428F **Selected Topics in Architectural History; History of Modern Architecture**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architectural History

0101	Matthew Bell WF 9:00am - 10:15am	Seats (Total: 20) TWS 1100

ARCH428H **Selected Topics in Architectural History**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architectural History

Contact department for information to register for this course.

ARCH428U **Selected Topics in Architectural History; A Survey of the History of Latin American Architecture and Urbanism in Context**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architectural History

0101	Juan Burke TuTh 2:00pm - 3:15pm	Seats (Total: 20) TYD 2106

ARCH429 **Independent Studies in Architectural History**

Credits: 1-4

Grading Method: Regular, Pass-Fail, Audit

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

Contact department for information to register for this course.

ARCH445 **Visual Analysis of Architecture**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARCH400; or permission of ARCH-Architecture Program. Restriction: Must be in Architecture (B.S.) program.

Study of visual principles of architectural and urban precedents through graphic analysis. Exercises include on-site observation, documentation and analysis. Focuses on the development of an architect's sketchbook as a tool for life-long learning.

0101	Eric Jenkins	Seats (Total: 30)
	M 10:00am - 12:40pm	TYD 2111

ARCH448M **Selected Topics in Visual Studies in Architecture; Applied Model Making**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Visual Studies in Architecture

0101	David Atwater	Seats (Total: 12)
	TuTh 12:30pm - 1:45pm	Location: TBA

ARCH448V **Selected Topics in Visual Studies in Architecture; Survey and Drawing: Mapping the Architecture of Florence**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Visual Studies in Architecture

Contact department for information to register for this course.

ARCH458A **Selected Topics in Urban Design**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Urban Design

Contact department for information to register for this course.

ARCH459P **Independent Studies in Urban Design; Creative Placemaking and Landscape Architecture**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

0101	Ronit Eisenbach	Seats (Total: 1)
	MWF 3:00pm - 4:00pm	ONLINE

ARCH461 **Sustainability in Architecture**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ARCH-Architecture Program. Credit only granted for: ARCH418S or ARCH461. Formerly: ARCH418S.

Strategies of sustainability as related to the broader context of architectural problem solving.

Contact department for information to register for this course.

ARCH463 **Sustainable Systems in Architecture**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARCH462. Restriction: Must be in a major in undergraduate or graduate ARCH program.

Sustainable systems in architecture examines the nature of the global problem, environmental economics, understanding the local environment, bioclimatic design, solar control and shading, solar access zoning, residential scale energy design issues, commercial scale energy design issues, and urban scale energy design issues.

0101	Michael Binder	Seats (Total: 120)
	TuTh 3:30pm - 4:45pm	ARC 0204

ARCH465 **Architectural Structures II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARCH464 and PHYS121; and MATH120 or MATH140, or equivalent; or permission of the ARCH-Architecture Program. Restriction: Must be in either BS in Architecture or M. Architecture Program. Credit only granted for: ARCH412 or ARCH465.

The basic principles of elastic behavior for different materials such as wood, steel, concrete, and composite materials and compares the properties and applications of materials generally will be covered. It investigates cross sectional stress and strain behavior in flexure and in shear, and torsion as well as the stability of beams and columns. The qualitative behavior of combined stresses and fracture in materials is also covered.

0101	Michael Binder TuTh 9:30am - 10:45am	Seats (Total: 70) SHM 2102

ARCH470 **Computer Applications in Architecture**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ARCH400; or permission of ARCH-Architecture Program. Restriction: Must be in Architecture (B.S.) program.

Introduction to computer utilization, with emphasis on architectural applications.

0101	Stefano Passeri Tu 7:00pm - 9:30pm Th 7:00pm - 8:15pm	Seats (Total: 22) ARC 1115 ARC 1115

ARCH472 **Building Information Modeling Communication and Collaboration**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major in ARCH-Architecture Program; or must be in the Construction Project Management Minor. Credit only granted for: ARCH678I or ARCH472. Formerly: ARCH678I.

Building Information Modeling is explored as pertains to collaboration and communication in the design and construction of buildings and building systems. Practical and empirical learning using BIM software and case studies of real world projects and construction scenarios.

0101	Douglas Crawford WF 9:30am - 10:45am	Seats (Total: 20) ARC 1115
0102	Douglas Crawford WF 11:00am - 12:15pm	Seats (Total: 20) ARC 1115

ARCH478 **Selected Topics in Architecture; Architecture in Context: City, Spaces and Urban Design**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architecture

Contact department for information to register for this course.

ARCH478B **Selected Topics in Architecture; Architecture in Italy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architecture

Contact department for information to register for this course.

ARCH478C **Selected Topics in Architecture; Careers in Architecture**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architecture

0101	Vytenis Gureckas	Seats (Total: 20)
	Tu 4:00pm - 6:30pm	ARC 1101

ARCH478G **Selected Topics in Architecture; The Villa and the Garden**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architecture

Contact department for information to register for this course.

ARCH478O **Selected Topics in Architecture; Three-Dimensional Digital Documentation: Using Laser-based Measurement Systems**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architecture

Cross-listed with ARCH678O, ANTH448R, ANTH632, and HISP619O. Credit only granted for: ARCH478O, ARCH678O, ANTH448R, ANTH632 or HISP619O. This course focuses on the fundamentals of documenting components of the built environment and the landscapes in which they are located. It focuses on the use of lasers to calculate 3-D measurements at various scales, from objects, to buildings, and landscapes. It will cover data management and archiving, field documentation processes, and post-processing of scan point clouds. This includes the production of deliverables for clients or project partners, such as plans, elevations, orthoimagery, and cleaned exported point clouds in formats that are compatible with Autodesk software and other CAD or rendering software platforms. This course is intended for students working in fields that rely on accurately documenting components of the built environment in three dimension, including architects, engineers, preservationists, archaeologists, or digital designers.

0101	Stefan Woehlke W 2:00pm - 4:40pm	Seats (Total: 15) ARC 1115

ARCH478T **Selected Topics in Architecture; Ecological Design Thinking**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architecture

Cross-listed with ARCH678T. Credit only granted for ARCH478T or ARCH678T.

0101	Julie Gabrielli W 9:00am - 11:40am	Seats (Total: 20) SQH 1101

ARCH478U **Selected Topics in Architecture; The Black Experience and The American Built Environment**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architecture

This course will explore the historical and contemporary relationships between the American Black Population and the design, planning, land policy and use of American land.

0101	Marques King W 7:00pm - 9:50pm	Seats (Total: 20) ARC 1103

ARCH601 **Topical Design Studio VI**

(Perm req)

Credits: 6 Grading Method: Regular, Audit

Restriction: Permission of ARCH-Architecture Program.

Topical architectural design studio with concentration on advanced topical inquiry addressing but not limited to: architectural competitions, sustainable design, theoretica/conceptual issues, programmatic, contextual, and/or technical issues.

Restricted to ARCH, URPD or ARCP majors.

0101	Madlen Simon	Seats (Total: 40)
	MWF 2:00pm - 6:00pm	Location: TBA

ARCH629 **Graduate Independent Studies in Architectural History; Sacred Spaces in Islamic West Africa**

Credits: 1-4 Grading Method: Regular, Audit

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

0101	Michele Lamprakos	Seats (Total: 1)
	Class time/details on ELMs	ONLINE

ARCH635 **Seminar in the History of Modern Architecture**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ARCH225 and ARCH226; or ARCH425 and ARCH426; or permission of the ARCH-Architecture Program.

Advanced investigation of historical problems in modern architecture.

0101	Matthew Bell	Seats (Total: 30)
	WF 9:00am - 10:15am	TWS 1100

ARCH654 **Urban Development and Design Theory**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ARCH225 and ARCH226; or ARCH425 and ARCH426; or permission of the ARCH-Architecture Program. Restriction: Permission of ARCH-Architecture Program.

Advanced investigation into the history, and practice of urban design, planning, and development.

0101	Juan Burke	Seats (Total: 35)
	TuTh 11:00am - 12:15pm	ARC 0204

ARCH655 **Urban Design Seminar**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ARCH654; or permission of ARCH-Architecture Program. Credit only granted for: ARCH451 or ARCH655. Formerly: ARCH451.

Advanced investigation into problems of analysis and evaluation of the design of urban areas, spaces, and complexes with emphasis on physical and social considerations; effects of public policies through case studies. Field observations.

0101	Michael Abrams M 10:30am - 1:00pm	Seats (Total: 15) ARC 1127

ARCH670 **Advanced Computer Applications in Architecture**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of ARCH-Architecture Program. Credit only granted for: ARCH678C or ARCH670. Formerly: ARCH678C.

Advanced use of computer technology in design. Use of digital design processes and conceptual methodologies to study design alternatives and realization. Methods and techniques of digital design representation, simulation, or fabrication to explore and test concepts and integration of digital technologies into the architectural design process.

0101	Hiroshi Jacobs, Ethan Levine W 7:00pm - 9:40pm	Seats (Total: 15) ARC 1125

ARCH678O **Advanced Selected Topics in Architecture; Three-Dimensional Digital Documentation: Using Laser-based Measurement Systems**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Graduate Selected Topics in Architecture.

Cross-listed with ARCH478O, ANTH448R, ANTH632, and HISP619O. Credit only granted for: ARCH478O, ARCH678O, ANTH448R, ANTH632 or HISP619O. This course focuses on the fundamentals of documenting components of the built environment and the landscapes in which they are located. It focuses on the use of lasers to calculate 3-D measurements at various scales, from objects, to buildings, and landscapes. It will cover data management and archiving, field documentation processes, and post-processing of scan point clouds. This includes the production of deliverables for clients or project partners, such as plans, elevations, orthoimagery, and cleaned exported point clouds in formats that are compatible with Autodesk software and other CAD or rendering software platforms. This course is intended for students working in fields that rely on accurately documenting components of the built environment in three dimension, including architects, engineers, preservationists, archaeologists, or digital designers.

0101	Stefan Woehlke W 2:00pm - 4:40pm	Seats (Total: 15) ARC 1115

ARCH678T **Advanced Selected Topics in Architecture; Ecological Design Thinking**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Graduate Selected Topics in Architecture.

Cross-listed with ARCH478T. Credit only granted for ARCH478T or ARCH678T.

0101	Julie Gabrielli W 9:00am - 11:40am	Seats (Total: 20) SQH 1101

ARCH678U **Advanced Selected Topics in Architecture; The Black Experience & The American Built Environment**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Graduate Selected Topics in Architecture.

This course will explore the historical and contemporary relationships between the American Black Population and the design, planning, land policy and use of American land.

0101	Marques King W 7:00pm - 9:50pm	Seats (Total: 20) ARC 1103

ARCH679 **Advanced Independent Studies in Architecture; Independent Study in Architecture**

Credits: 1-4

Grading Method: Regular, Audit

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

Contact department for information to register for this course.

ARCH688A **Advanced Selected Topics in Architectural Technologies; Carbon Neutral Development through Net Zero and Net Impact Design**

Credits: 3 Grading Method: Regular, Audit

Graduate Selected Topics in Architectural Technologies.

0101	Instructor: TBA	Seats (Total: 10)
	Th 2:00pm - 4:40pm	VMH 1101

ARCH797 **Thesis Proseminar**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ARCH601.

Directed research and preparation of thesis program.

0101	James Tilghman	Seats (Total: 15)
	M 9:00am - 11:30am	SQH 1101

ARCH798 **Thesis in Architecture**

(Perm req)

Credits: 3 Grading Method: Regular

Complements the research of ARCH 799, with presentation of the design research to student's thesis committee.

Contact department for information to register for this course.

ARCH799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Development of master's thesis.

Restricted to ARCH majors only.

Contact department for information to register for this course.

AREC Agricultural and Resource Economics Spring 2022

AREC210 **The Food Chain: What Happens As Your Food Goes From Farm to Table**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Food supply chains link farms, input providers, traders, food processors, and retailers. We assess how supply chains are organized, how they use technologies, and how they are adapting their organization and technologies to meet the challenges facing the food system and society. The challenges include: 1) Producing enough food to meet a growing global population, while reducing damages to air, water, and soil resources; (2) Meeting the health challenges posed by obesity and food insecurity, while also meeting consumer preferences for how food should be produced; and (3) Doing all this in the face of climate change.

0101	James MacDonald	Seats (Total: 80)
	MWF 11:00am - 11:50am	TWS 1100

AREC240 **Introduction to Economics and the Environment**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

Credit only granted for: ECON200, AREC240, or AREC250.

Costs and social impacts of pollution and human crowding in the modern environment. The economic, legal and institutional causes of these problems. Public policy approaches to solutions and the costs and benefits of alternative solutions.

0101	Roberton Williams	Seats (Total: 80)
	TuTh 11:00am - 12:15pm	TYD 0117

AREC250 **Elements of Agricultural and Resource Economics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

Credit only granted for: ECON200, AREC240 or AREC250.

An introduction to economic principles of production, marketing, agricultural prices and incomes, farm labor, credit, agricultural policies, and government programs.

0101	Zedekiah Higgs	Seats (Total: 80)
	TuTh 11:00am - 12:15pm	TWS 1100

AREC326 **Intermediate Applied Microeconomics**

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: ECON200, AREC250, or AREC240; and ECON201. And MATH120, MATH130, MATH136, or MATH140; or must have completed MATH220. Credit only granted for: ECON306, ECON326, AREC489M, or AREC326. Formerly: AREC489M.

Deepens and broadens your ability to apply rigorous economic analysis skills to a broad range of problems.

0101	Robert Chambers TuTh 2:00pm - 3:15pm	Seats (Total: 35) ONLINE	

AREC345 **Global Poverty and Economic Development**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DSHS, DVUP

This interdisciplinary course explores social and economic development around the world. Topics include geography, democratization, political instability and conflict, health and education, agricultural development, micro-entrepreneurship, and an introduction to impact evaluation methods used to evaluate the efficacy of public policy aimed at alleviating poverty.

0101	Steven Jaffee MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 40) SYM 0200 PLS 1119	 Discussion
0102	Steven Jaffee MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 40) SYM 0200 CHM 1228	 Discussion

AREC360 **Global Agriculture: Developing Extension Education & Agriculture Technologies in Africa**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DSSP, DVCC

Identifies challenges faced by farmers in Nimba County, Liberia, and works collaboratively across borders to discuss these challenges and develop extension education programming that will be implemented in the region in order to empower local farmers. The course is designed to create a paradigm shift for both cohorts of students who will educate and learn from each other in what is now becoming a critical context - the globalized workspace. UMD and LICC students will be grouped together to identify and develop particular thematic areas most needed by local farmers, and then as a cohort create a week-long extension program to be implemented on the ground.

For more course information, contact Taryn Devereux at taryndev@umd.edu.

0101	Taryn Devereux	Seats (Total: 12)
	W 10:00am - 12:50pm	SYM 2200B

AREC365 **World Hunger, Population, and Food Supplies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DVUP

An introduction to the problem of world hunger and possible solutions to it. World demand, supply, and distribution of food. Alternatives for leveling off world food demand, increasing the supply of food, and improving its distribution. Environmental limitations to increasing world food production.

0101	Ramakrishna Sharan Mamidipudi	Seats (Total: 300)
	TuTh 2:00pm - 3:15pm	ARC 0204

AREC380 **Data Science for Environmental and Resource Economics**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: AREC240, AREC241, AREC250, or ECON200.

An introduction to principles of data science using modern, open source software tools with applications to important problems in environmental, energy and resource economics. Topics include data wrangling, exploratory data analysis and visualization, modeling, forecasting, practices for reproducible research, and communication of results.

0101	James Archsmith	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	PLS 1129

AREC386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of AGNR-Agricultural & Resource Economics department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

AREC388 **Honors Thesis Research**

(Perm req)

Credits: 3-6 Grading Method: Regular

Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

Contact department for information to register for this course.

AREC399 **Special Problems**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Concentrated reading and study in some phase of a problem in agricultural and/or natural resource economics.

Contact department for information to register for this course.

AREC405 **Economics of Production**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ECON326 or AREC326; or students who have taken courses with comparable content may contact the department.

The use and application of production economics in analysis of firm and policy decisions. Production functions, cost functions, multiple product and joint production, and production processes through time.

0101	Robert Chambers	Seats (Total: 35)
	TuTh 9:30am - 10:45am	ONLINE

AREC433 **Food and Agricultural Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ECON326 or AREC326; or students who have taken courses with comparable content may contact the department.

Economic and political context of governmental involvement in the farm and food sector. Historical programs and current policy issues. Analysis of economic effects of agricultural programs, their benefits and costs, and comparison of policy alternatives. Analyzes the interrelationship among international development, agricultural trade and general economic and domestic agricultural policies.

0101	James MacDonald	Seats (Total: 35)
	MWF 1:00pm - 1:50pm	SYM 0215

AREC435 **Commodity Futures and Options**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: AREC326; or ECON326; or students who have taken courses with comparable content may contact the department.

The economics and institutional features of commodity futures and options markets. Students will develop a basic understanding of the underlying price relationships between cash and futures markets and will apply this information to business risk management decision making.

0101	Dale Johnson MW 3:30pm - 4:45pm	Seats (Total: 40) HBK 0115

AREC447 **The Economy of China**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: AREC326, ECON306, or ECON326. Restriction: Must be in one of the following programs (Agricultural and Resource Economics; Agricultural and Resource Economics: Agribusiness).

An introductory survey course of economic development in China with emphasis on understanding the process of economic reform in mainland China since 1978.

0101	Jing Cai TuTh 11:00am - 12:15pm	Seats (Total: 10) SYM 0200

AREC454 **The Economics of Climate Change**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (AREC326, ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, ECON321, BMGT230). Cross-listed with: ECON484. Credit only granted for: AREC454 or ECON484.

The role of economics in the formation of climate policy; basic concepts of environmental economics including efficiency, externalities, and policy instruments; economic models of intertemporal decisions and decision making in the face of uncertainty. Applied economic analysis of specific issues and current policy initiatives.

0101	Anna Alberini MW 2:00pm - 3:15pm	Seats (Total: 60) PLS 1140

AREC456 **Energy and Environmental Economics**

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: 1 course with a minimum grade of C- from (AREC326, ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, ECON321, BMGT230). Cross-listed with: ECON486. Credit only granted for: AREC456 or ECON486.

Economic theory and empirical methods are used to study problems of energy, the environment, and the economy. It examines the extraction, production, and use of energy and market institutions and regulatory approaches used to correct market failures. Topics covered include: oil and natural gas markets, management and design of electricity markets, renewable energy, non-market valuation , climate change, and transportation policies.

0101	Joshua Linn	Seats (Total: 80)
	TuTh 12:30pm - 1:45pm	SYM 0200

AREC481 Environmental Economics

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (AREC326, ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, ECON321, BMGT230). Restriction: Must be in one of the following programs (Agricultural and Resource Economics; Agricultural and Resource Economics: Agribusiness; Environmental Science & Policy-Env Economics; Agricultural and Resource Economics: Environmental and Resource Economics; Economics Bachelor of Arts program). Cross-listed with: ECON481. Credit only granted for: ECON481 or AREC481.

An exploration of the use of economic incentives for protection of the environment and the determination of appropriate (or efficient) level of environmental quality. Also covers the choice of policy instruments for the attainment of environmental standards.

0101	Roberton Williams	Seats (Total: 80)
	TuTh 2:00pm - 3:15pm	SYM 0200

AREC610 Microeconomic Applications in Agricultural and Resource Markets

Credits: 3

Grading Method: Regular, Audit

Prerequisite: ECON603.

Applications of graduate level microeconomic analysis to the problems of agricultural and natural resource production and distribution including demand for agricultural output, the nature of agricultural supply decisions, decision making under uncertainty, valuation of natural resources, and exploitation of natural resources.

0101	Jorge Holzer Bilbao	Seats (Total: 25)	
	TuTh 9:30am - 10:45am	SYM 0209	
	Tu 3:35pm - 5:05pm	SYM 0209	Discussion

AREC624 **Applied Econometrics II**

Credits: 4 Grading Method: Regular, Audit

Prerequisite: AREC623.

Variations of the standard linear model, simultaneous equations estimation, nonlinear regression, nonlinear simultaneous equations estimation, static and dynamic panel data models, errors in variables, Hausman tests, discrete choice models such as conditional multinomial and mixed logit models, latent class models, semi-parametric estimation, varying parameter models, unobserved variables, time series models, and model selection procedures.

0101	Anna Alberini	Seats (Total: 30)	
	MW 10:00am - 12:30pm	SYM 0215	
	F 10:30am - 12:00pm	SYM 0215	Discussion

AREC699 **Special Problems in Agricultural and Resource Economics**

(Perm req)

Credits: 1-2 Grading Method: Regular, Audit

Intensive study and analysis of specific problems in the field of agricultural and resource economics, providing in-depth information in areas of special interest to the student.

Contact department for information to register for this course.

AREC784 **Energy Economics, Empirical Industrial Organization, and Public Policy**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: ECON603, AREC623, and AREC624; or permission of instructor.

Energy markets and public policy, evaluating techniques for estimating market demand and supply and for evaluating policy intervention. Comparison of reduced-form and structural approaches. Applications may include but are not limited to electricity, oil and other liquid fuels, and household travel, with examples from the United States and other countries.

0101	Joshua Linn	Seats (Total: 25)	
	TuTh 2:15pm - 3:30pm	SYM 0209	

AREC799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

AREC815 **Experimental and Behavioral Economics**

Credits: 3 Grading Method: Regular

Prerequisite: AREC623, AREC624, ECON603, and ECON604; or equivalent. Credit only granted for: AREC815 or AREC869A. Formerly: AREC869A.

An overview of the design, implementation, and analysis of experiments motivated by behavioral economics, with a particular focus on experiments in field settings. Topics covered include social preferences, risk aversion, prospect theory, present bias, overconfidence, and limited attention.

0101	Neslihan Uler	Seats (Total: 25)
	MW 2:00pm - 3:15pm	SYM 0215

AREC844 **Firm Growth in Developing Countries**

Credits: 3 Grading Method: Regular

Prerequisite: A one-year PhD-level sequence in microeconomics and a PhD-level course in econometrics.

A study of the growth of firms face in developing countries and interventions/policies that can be used to remove barriers to growth, including issues related to management, credit constraints, political connections, misallocation and trade.

0101	Jing Cai	Seats (Total: 25)
	TuTh 9:30am - 10:45am	SYM 0215

AREC869D **Advanced Topics in Agricultural and Resource Economics; Political Economy of Development**

Credits: 3 Grading Method: Regular, Audit

Frontiers of research in environmental and resource economics; agricultural policy, production, and trade; and development. Topics may include decision making under risk and related market institutions, principal agent analysis, optimal policy design, technology adoption, market structure, land and credit markets, information markets, and income distribution.

This course introduces key topics in political economy from the lens of empirical development economics. We will survey a broad cross-section of papers looking at how political economy of development has evolved over the past three decades. Students will be exposed to recent advances in empirical methods, including practical applications of field experiments and natural experiments.

0101	Ramakrishna Sharan Mamidipudi	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	EGR 1102

AREC898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Sat-Fail

Contact department for information to register for this course.

AREC899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ARHU Arts and Humanities Spring 2022

ARHU158Q **Explorations in Arts and Humanities; The Power of Youth**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSSP

A first-year innovation and research experience. It introduces multiple disciplinary perspectives within a given theme to understand human beings, cultures and societies. Students will learn about key questions, concepts, methods, and practices within ARHU and will engage in original humanistic research while working with campus and college tools and resources.

Restricted to first semester first year students in the College of Arts and Humanities. Twenty-something influencers such as Kylie Jenner and Shawn Mendes use social media to reach their millions of followers and to help shape what what they think about, talk about, and purchase. Parkland, Florida students Emma Gonzalez and David Hogg show how young people can affect social change by advocating for stricter gun control laws on national media outlets. Starting with these examples and drawing from literature, politics, and gender and sexuality studies, we will analyze youth and its power in our culture.

0101	Robert Crane	Seats (Total: 25)
	MW 3:30pm - 4:45pm	KEY 0125

ARHU230 **Introduction to Humanities, Health, and Medicine**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Restriction: Permission of ARHU-School of Languages, Literatures, and Cultures department. Cross-listed with: ENGL254, HIST219N, WGSS230. Credit only granted for: ARHU230 , ENGL289C, ENGL254, ARHU298A, HIST219N, or WGSS230.

An overview of the historical, cultural, ethical, and spiritual dimensions of medicine, human health, disease, and death from the points of view of various humanistic disciplines.

0101	Jessica Mathiason TuTh 3:30pm - 4:45pm	Seats (Total: 20) SQH 1105

ARHU269M **Special Topics in Study Abroad II; Sicily Against the Mafia**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARHU269V **Special Topics in Study Abroad II; Vienna and Budapest Field Study**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARHU275 **Scriptwriting for Theater, Film, and Television**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSHU, DSSP

Cross-listed with: ENGL275. Credit only granted for: ENGL275 or ARHU275.

Introduction to the theory and practice of scriptwriting with an opportunity to read, view, evaluate, write, and revise texts meant to be performed. Students will practice writing for the stage, film, and television and also examine selected scripts, performances, and film and television clips as models for their own creative work. Students will complete frequent writing exercises, participate in workshops, and learn to apply scholarship to the analysis and critique of scripts.

0101	Liam Daley MWF 10:00am - 10:50am	Seats (Total: 15) EDU 3315
0102	Liam Daley MWF 10:00am - 10:50am *This section is restricted to students in the Jimenez-Porter Writers' House.*	Seats (Total: 5) EDU 3315

ARHU286 **Experiential Learning**

(Perm req)

Credits: 3-6

Grading Method: Regular, Pass-Fail

Prerequisite: Permission of ARHU-College of Arts & Humanities. Restriction: Minimum cumulative GPA of 2.5; and must be in a major or minor in ARHU - College of Arts and Humanities; and must have earned a minimum of 12 credits; and must not have earned more than 60 credits.

Designed for students who have completed fewer than 60 credits, students who are in their first semester at the University of Maryland, and/or students who wish to complete legislative internships, research-based internships, some start-up internships and some remote internships. All students must be enrolled in an ARHU major or minor and the internship must be in one of the academic fields covered within the College of Arts and Humanities. In addition to completing their required hours on site, students with fewer than 60 credits and students who are in their first semester at the University of Maryland will be required to attend three bi-weekly seminars at the beginning of the semester to help develop their para-professional goals and understandings.

0101	Jeffrey Kodis, Paula Nadler	Seats (Total: 10)
	Contact instructor or department for details.	

ARHU318A **Writers' House Colloquium: Creative Writing Across Languages and Cultures; Poetry Colloquium**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Colloquium designed to improve students' skills in literary and communication arts through lectures and discussions on the history and craft of writing across cultures. Topics for the different versions of ARHU 318 include poetry, fiction, writing for different media, autobiography and memoir, scriptwriting, screenwriting, and community engagement projects.

Restricted to Jimenez-Porter Writers' House Students. The first class period will be conducted online, at which point the schedule for the rest of the semester will be distributed.

0101	Andrienne Palchick	Seats (Total: 15)
	W 4:00pm - 5:15pm	QAN 1132

ARHU318B **Writers' House Colloquium: Creative Writing Across Languages and Cultures; Prose Colloquium**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Colloquium designed to improve students' skills in literary and communication arts through lectures and discussions on the history and craft of writing across cultures. Topics for the different versions of ARHU 318 include poetry, fiction, writing for different media, autobiography and memoir, scriptwriting, screenwriting, and community engagement projects.

Restricted to Jimenez-Porter Writers' House Students The first class period will be conducted online, at which point the schedule for the rest of the semester will be distributed.

0101	Johnna Schmidt, Jacqueline Mueck W 5:30pm - 6:45pm	Seats (Total: 15) QAN 1132

ARHU320 **Writers' House Second Year Colloquium: Writing for Publication**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Recommended: Completion of ARHU318 and ARHU319 recommended. Restriction: Currently enrolled in Writers' House or permission of program. Credit only granted for: ARHU319A or ARHU320. Formerly: ARHU319A.

Students write, discuss and revise for multiple forms of publication: reading their own work at least once in public, sending work out for publication to literary journals, and producing a chapbook of high quality by end of semester.

Restricted to Jimenez-Porter Writers' House students. The first class period will be conducted online, at which point the schedule for the rest of the semester will be distributed.

0101	Jacqueline Mueck, Johnna Schmidt F 2:00pm - 4:30pm	Seats (Total: 30) TWS 1320

ARHU338 **Undergraduate Teaching Assistantship in a Living Learning Program**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail

Offers exceptional students the opportunity to work closely with a faculty member and gain valuable experience. ARHU Living learning program UTAs also serve as peer mentors and program leaders. They assist with course planning, research, and student advising (as appropriate). We are also allowing for variable credit (1-3 cr hrs).

0101	Johnna Schmidt Contact instructor or department for details.	Seats (Total: 5)
0102	Jason Farman Contact instructor or department for details.	Seats (Total: 2)

ARHU380 **Arts & Humanities in Social Innovation, Change, and Justice: Do Good Now**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DSSP, SCIS

Credit only granted for: ARHU380, BSOS388B, or PLCY388D.

The course serves as the core course for the Arts-and-Humanities track in PLCY's minor in "Nonprofit Leadership and Social Innovation." Students will be introduced to the role that the Arts and Humanities can play in social innovation and social change, while exploring various mechanisms for achieving impact with a focus on advancing social justice, equity and systems change. This course deepens understandings of nonprofit leadership, entrepreneurship and social innovation by guiding students through the creation and implementation of social change projects and ventures of their choice.

Cross-listed with JWST319P. For Spring 2022: Credit granted only for JWST319P, ARHU380, BSOS388B, or PLCY388D.

0101	Lauren Kotkin Tu 6:00pm - 8:30pm	Seats (Total: 15) KEY 0100

ARHU386 **Experiential Learning**

(Perm req)

Credits: 3-6 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Prerequisite: Permission of ARHU-College of Arts & Humanities. Restriction: Junior standing or higher.

0201	Paula Nadler Contact instructor or department for details.	Seats (Total: 25)
0301	Susan Miller Contact instructor or department for details. *This section is restricted to students enrolled in the Arts Leadership Minor.*	Seats (Total: 5)
0401	Paula Nadler Contact instructor or department for details. *This section is intended for students engaging in research-based internships.*	Seats (Total: 5)

ARHU440 **Arts Leadership Seminar**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: TDPS440. Credit only granted for: TDPS4440 or ARHU440.

An advanced seminar in arts leadership exposing students to the foundations of arts leadership in not-for-profit organizations as it intersects with current trends in technology, demographics, government policy, and the economy. In case studies based on examples drawn from local arts organizations, students will learn about audience engagement as well as institutional development terminology and best practices.

0101	Leayne Dempsey	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	ONLINE

ARHU458 **Graduate School Preparation**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Designed for Juniors and Seniors who are interested in applying to graduate school. Topics include skills needed for the graduate school search and application process, evaluation and reflection of application materials, preparation for GRE exam, and exploration into career options after graduate school. Focus on the Humanities fields.

Designed for Juniors and Seniors who are interested in applying to graduate school. Topics include skills needed for the graduate school search and application process, evaluation and reflection of application materials, preparation for GRE exam, and exploration into career options after graduate school. Focus on the Humanities fields.

0101	Paula Nadler	Seats (Total: 25)
	Contact instructor or department for details.	

ARHU468 **Peer Mentoring Program**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

A workshop for sophomore, junior or senior students who wish to serve as peer mentors helping first-year students to cope with the numerous issues which often arise in the transition to the university.

Restricted to ARHU upperclassmen who will serve as peer mentors to help transition new students to the university. Interested students must apply to become a peer mentor.

0101	Allison Key	Seats (Total: 35)
	M 4:00pm - 5:30pm	KEY 0116

ARHU486 **Internship Practicum in Arts and Humanities**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Have completed previous internship at U of MD. Restriction: Must be in a major in ARHU-College of Arts & Humanities; and permission of ARHU-College of Arts & Humanities; and minimum cumulative GPA of 2.5; and must have earned a minimum of 60 credits; and completed 12 credits at U of MD.

An internship intended for students who have already completed an internship for credit. ARHU486 must be a different experience from the internship students have already taken for credit. Generally students intern with a different company, but they may continue working for the same company if the job is significantly different. See ARHU internship coordinator for details.

0101	Paula Nadler	Seats (Total: 20)
	Contact instructor or department for details.	

ARHU489 **Advanced Internship Practicum in ARHU**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Designed for students who have already completed at least 2 upper level internship courses for academic credit. It is an advanced practicum to assist students in continuing to develop and hone their professional writing, presentation and analytical skills.

0101	Paula Nadler	Seats (Total: 2)
	Contact instructor or department for details.	

ARMY Army Spring 2022

ARMY105 **Basic Military Science II**

Credits: 3 Grading Method: Regular, Pass-Fail

Credit only granted for: ARMY119 or ARMY105.

Exploration of the Army Leadership Model through classroom instruction, leadership training and mentorship. Develops knowledge and competency in physical fitness through rigorous training and experiential leadership education through leadership laboratories.

0101	Marisa Pace, Donald Casey, Allen Graham	Seats (Total: 40)
	TuTh 9:30am - 10:45am	BPS 1238
0102	Marisa Pace, Allen Graham, Donald Casey	Seats (Total: 40)
	MWF 9:00am - 9:50am	HBK 0302H

ARMY202 **Military Leadership in Practice**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This course uses the case study method to examine the Army Leadership Model as applied to assigned missions in U.S. history. Students learn to evaluate and assimilate effective leadership methods and techniques. Includes a laboratory period in which case studies are worked out and presented by individuals and groups.

0102	Marisa Pace, Adriana Tarrago, Allen Graham TuTh 2:00pm - 3:15pm	Seats (Total: 40) ESJ 1309	

ARMY302 **Advanced Military Leadership II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prepares contracted students for certification at the Army National Advance Camp, a prerequisite for commissioning as an officer in the U.S. Army. Focus is directed to military tactics, squad and platoon drills, marksmanship, land navigation and fitness excellence. Includes a laboratory period in applied leadership skills as well as a three day field exercise.

0101	Marisa Pace, Nicolas Vasquez	Seats (Total: 40)	
	TuTh 11:00am - 12:15pm	ESJ 1309	
	Th 4:00pm - 6:00pm	ARM 0126	Lab
	MWF 6:30am - 7:30am	ARM 0126	Lab

ARMY402 **Advanced Military Leadership IV**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The military system and code of ethics in the military environment is studied. Topics include code of conduct during all forms of military operations, the Geneva Conventions and the ethical decision making process. Also includes a laboratory in applied leadership skills, fitness excellence and two field exercises.

0101	Marisa Pace	Seats (Total: 30)	
	MW 12:30pm - 1:45pm	ESJ B0322	
	Th 4:00pm - 6:00pm	ARM 0135	Lab
	MWF 6:30am - 7:30am	ARM 0135	Lab

ARSC Air Science Spring 2022

ARSC059 **Air Force Officer Lab**

Credits: 1 Grading Method: Sat-Fail

Offers Air Force ROTC cadet officer's practical experience in military leadership, management, organization, and customs. May include visits to military installations, weekend laboratories, and flight orientation.

Restriction: Must be an AFROTC cadet. Repeatable to 10 credits if content differs. Additional information: This course does not carry any credit toward any degree at the University.

0101	Joshua Rager Th 7:00am - 8:50am	Seats (Total: 250) ARM 0126	 Lab
	Course meets in front of COL. Contact instructor for details.		

ARSC101 **The USAF Today II**

Credits: 1 Grading Method: Regular, Pass-Fail

Corequisite: AFROTC cadets must also register for ARSC059.

Freshman course for AFROTC. Continuation of ARSC100 for freshmen AFROTC cadets. Study of topics relating to the Air Forces and defense. Focuses on organizational structure and missions of the Air Force; officership and an introduction to both written and oral communication skills.

0101	Brenda Keitzer Tu 8:00am - 8:50am	Seats (Total: 22) ARM 0126
0102	Brenda Keitzer Th 9:00am - 9:50am	Seats (Total: 50) CHM 2201
0103	Brenda Keitzer Th 1:00pm - 1:50pm	Seats (Total: 35) SYM 0215

ARSC201 **The Development of Air Power II**

Credits: 1 Grading Method: Regular, Pass-Fail

Corequisite: AFROTC cadets must also register for ARSC059.

Continuation of ARSC 200 for sophomore AFROTC cadets. The study of historical events, leaders, and technical developments which surrounded the growth of air power; the basics of leadership; environment of an Air Force officer; and concepts of ethical behavior.

0101	Joshua Rager Th 10:00am - 10:50am	Seats (Total: 49) CHM 2201

0102	Joshua Rager Th 2:00pm - 2:50pm	Seats (Total: 35) PHY 2208
0103	Joshua Rager Tu 10:00am - 10:50am	Seats (Total: 25) CHM 2201

ARSC301 **Management and Leadership II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Corequisite: AFROTC cadets must also register for ARSC059; or permission of UGST-AFROTC-Air Science. Restriction: Junior standing or higher.

Continuation of ARSC300. Study of leadership and management skills and leadership ethics as well as written and oral communication skills required of Air Force officers. This course will satisfy credit towards a minor in military studies.

0101	Brawnlyn Patterson Th 9:00am - 12:00pm	Seats (Total: 45) CHM 1228
0102	Brawnlyn Patterson TuTh 12:30pm - 1:50pm	Seats (Total: 18) JMZ 1226

ARSC401 **National Security Forces in Contemporary American Society II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARSC300 or ARSC301; or permission of UGST-AFROTC-Air Science. Corequisite: ARSC059; or permission of UGST-AFROTC-Air Science. Restriction: Senior standing.

This course examines various subjects including: military law/justice, preparation for active duty, and current issues affecting military professionalism. This course will satisfy credit towards a minor in military studies.

0101	Blake Harness Th 9:00am - 12:00pm	Seats (Total: 25) EGR 3102
0102	Blake Harness TuTh 2:00pm - 3:30pm	Seats (Total: 18) ESJ B0320
0103	Blake Harness MW 2:00pm - 3:30pm	Seats (Total: 1) JMZ 2120

ARTH Art History & Archaeology Spring 2022

ARTH169A **Special Topics in Study Abroad I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH169B **Special Topics in Study Abroad I; Arts of Modernity**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH169I **Special Topics in Study Abroad I; Art of Rome**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH200 **Art and Society in Ancient and Medieval Europe and the Mediterranean**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HA General Education: DSHU, DVUP

Examines the material culture and visual expressions of Mediterranean and European societies from early times until ca. 1300 CE, emphasizing the political, social, and religious context of the works studied, the relationships of the works to the societies that created them, and the interrelationship of these societies.

0101	Maryl Gensheimer TuTh 11:00am - 11:50am M 9:00am - 9:50am	Seats (Total: 25) ASY 2203 ASY 3215	 Discussion
0102	Maryl Gensheimer TuTh 11:00am - 11:50am W 10:00am - 10:50am	Seats (Total: 25) ASY 2203 ASY 3215	 Discussion

0103	Maryl Gensheimer TuTh 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 25) ASY 2203 ASY 3211	Discussion
0104	Maryl Gensheimer TuTh 11:00am - 11:50am F 9:00am - 9:50am	Seats (Total: 25) ASY 2203 ASY 3215	Discussion
0105	Maryl Gensheimer TuTh 11:00am - 11:50am W 1:00pm - 1:50pm	Seats (Total: 25) ASY 2203 ASY 3215	Discussion
0106	Maryl Gensheimer TuTh 11:00am - 11:50am W 12:00pm - 12:50pm	Seats (Total: 25) ASY 2203 ASY 3215	Discussion

ARTH201 **Art and Society in the West from the Renaissance to the Present**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA | General Education: DSHU, DVUP

Examines representative European and American works of art from the later Middle Ages to the present, highlighting the dynamic exchange between artistic and cultural traditions both within periods and across time.

0101	Joshua Shannon MW 9:00am - 9:50am M 10:00am - 10:50am	Seats (Total: 25) ASY 2203 ASY 3207	Discussion
0102	Joshua Shannon MW 9:00am - 9:50am W 10:00am - 10:50am	Seats (Total: 25) ASY 2203 ASY 3211	Discussion
0103	Joshua Shannon MW 9:00am - 9:50am W 11:00am - 11:50am	Seats (Total: 25) ASY 2203 ASY 3211	Discussion
0104	Joshua Shannon MW 9:00am - 9:50am F 10:00am - 10:50am	Seats (Total: 25) ASY 2203 ASY 3211	Discussion

ARTH265 **How (and Why) to Look at Art in the Era of Climate Change**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, SCIS

Credit only granted for: ARTH265 or ARTH465. Formerly: ARTH465.

How can art help us build the mindset necessary for fashioning a sustainable civilization? Paintings, photographs, films, novels, songs, and other creative works as they shape beliefs related to sustainability and justice.

0101	Joshua Shannon MW 11:00am - 11:50am M 9:00am - 9:50am	Seats (Total: 25) ASY 2203 ASY 3207	Discussion
0102	Joshua Shannon MW 11:00am - 11:50am M 10:00am - 10:50am	Seats (Total: 25) ASY 2203 ASY 3215	Discussion
0103	Joshua Shannon MW 11:00am - 11:50am W 10:00am - 10:50am	Seats (Total: 25) ASY 2203 ASY 3207	Discussion
0104	Joshua Shannon MW 11:00am - 11:50am F 9:00am - 9:50am	Seats (Total: 25) ASY 2203 ASY 3207	Discussion

ARTH269A **Special Topics in Study Abroad II; Archaeology and Art of Ancient Italy**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH269D **Special Topics in Study Abroad II**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH269P **Special Topics in Study Abroad II; From Medieval to Contemporary: Exploring the Great Art and Architecture of Prague**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH269R **Special Topics in Study Abroad II; Art of Renaissance**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH290 **Art and Society in Asia**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA, D | General Education: DSHU, DVUP

A comparative, interrelational study of the different visual arts and material cultures produced by societies in Asia. An examination of the historical traditions and forms in political, social, and religious contexts.

Contact department for information to register for this course.

ARTH301 **Aegean Art and Archaeology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Sites and monuments of painting, sculpture, architecture, and the minor arts of Crete, the Cycladic islands, and the Greek mainland from the earliest times to the downfall of the Mycenaean empire.

0101	Emily Egan	Seats (Total: 25)
	TuTh 9:30am - 10:45am	ASY 3215

ARTH313 **Medieval Art: Cultural Exchanges in the Byzantine World**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP

Recommended: ARTH200 or ARTH201.

Focuses on the art and architecture from the eastern Mediterranean, specifically, the Byzantine empire. Our broad focus will be on the formation and evolution of the visual arts in Byzantium as a result of exchanges with various cultural, ethnic, and religious entities and traditions. In this context, we will be looking at the legacy of the Graeco-Roman past, contacts with Islamic world, as well as with people and cultures along the periphery of Byzantium: from the Balkan peninsula, to Sicily and Russia.

0101	Aneta Georgievska-Shine TuTh 2:00pm - 3:15pm	Seats (Total: 20) ASY 3211

ARTH324 **Leonardo's World: Art and Experience in Renaissance Italy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Painting, sculpture, architecture, and the decorative arts of the sixteenth century in Italy.

0101	Aneta Georgievska-Shine TuTh 3:30pm - 4:45pm	Seats (Total: 25) ASY 3211

ARTH359O **Film as Art; Film Gazes and Points of View**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of film as a visual art, from theoretical, cultural and aesthetic perspectives. Content varies by semester.

0101	Greg Metcalf W 3:30pm - 7:00pm	Seats (Total: 25) ASY 3215

ARTH369Q **Special Topics in Study Abroad III; Patrons and Artists in Baroque Italy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH376 **Living Art of Africa**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D

Art styles among the segmentary, centralized, and nomadic people of Africa. The iconography and function of their art and its relationship to their various societies, cults and ceremonies.

0101	Kevin Tervala M 4:00pm - 6:30pm	Seats (Total: 25) ASY 3215

ARTH386 **Experiential Learning**

Credits: 3-6 Grading Method: Regular, Pass-Fail General Education: DSSP

Prerequisite: Permission of ARHU-Art History & Archaeology department. Restriction: Junior standing or higher.

Supervised internship experience in diverse areas of art historical, archaeological, and museological work.

Contact department for information to register for this course.

ARTH389C **Special Topics in Art History and Archaeology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

ARTH389D **Special Topics in Art History and Archaeology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

ARTH389E **Special Topics in Art History and Archaeology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

ARTH389F **Special Topics in Art History and Archaeology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

ARTH389G **Special Topics in Art History and Archaeology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

ARTH391 **Transnational Chinese Cinema**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Cross-listed with: CINE335. Credit only granted for: ARTH391 or CINE335.

Chinese cinema has made a big impact on contemporary world film culture. This course will introduce students to the films directed by some of the most representative filmmakers working in different geopolitical locations (mainland China, Taiwan, Hong Kong) and the Chinese diaspora. The films of these directors, in a spectrum of genres, themes, and styles, have inspired global scholarship, not only in visual culture and cinema, but also in the study of women's issues, gender and ethnic studies, as well as the fields of adaptation and intermedia studies. Students will explore these films in their socio-historical and artistic contexts, considering the influences and innovations that have shaped them and analyzing their reception by audiences and critics. After reading about the films they view, and participating in class discussions, students will be ready to complete their analytical written assignments, for which they will critically examine the films by applying key concepts such as gender, sexuality, race, gaze, style, representation, power, diaspora, etc.

0101	Jason Kuo	Seats (Total: 25)
	M 1:00pm - 3:30pm	TWS 1313

ARTH484 **Modern Chinese Film and Visual Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: CINE426. Credit only granted for: ARTH484, CINE426 or FILM426. Formerly: FILM426.

Modern Chinese culture, society, and history studied through examples of art, film, and visual culture.

Cinema is arguably the most influential global art form of the twentieth century. Within a year of its invention in the West, in 1896, it reached China, and since then has become an indispensable part of the social, political, and cultural life of the Chinese people. In this course, we will explore modern Chinese film and visual culture to examine topics such as modernity; tradition versus modernization; cultural nationalism; and Chinese responses to Western visual culture. We will examine works representative of Chinese film in both their local, Chinese context and that of worldwide cinema. We will consider how modern Chinese films and visual culture have been shaped by traditional Chinese aesthetic sensibilities and art forms as well as by foreign influences.

0101	Jason Kuo	Seats (Total: 20)
	W 3:00pm - 5:30pm	ASY 3207

ARTH488A **Colloquium in Art History; Japanese Art in the 20th Century: Empire, War and Occupation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Colloquium to investigate a specific topic in depth.

Some asynchronous components. Learn how art played a role in building the Japanese empire, supporting the war effort, and rebuilding the nation after defeat. Discover the relation between art, power and politics. See how contemporary Japanese artists incorporate modern history into their art. Touch history by working with archival materials.

Contact department for information to register for this course.

ARTH488B **Colloquium in Art History**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Colloquium to investigate a specific topic in depth.

Contact department for information to register for this course.

ARTH488D **Colloquium in Art History; Mining the Visual Culture of the Great Depression**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Colloquium to investigate a specific topic in depth.

During the Great Depression, economic crises, environmental disasters, and social movements transformed American life. This class focuses on the visual culture of this period from documentary photography and public murals to cinema and modern design. In addition to examining iconic works by artists like Dorothea Lange and Diego Rivera, we will engage local archives of photographs, posters, artist papers and other primary sources from the 1930s. Students in this seminar will not only explore a critical era in American visual culture but also reflect on how we form and use archives to shape our understanding of the past.

0101	Tess Korobkin	Seats (Total: 12)
	TuTh 2:00pm - 3:15pm	ASY 3217

ARTH488M **Colloquium in Art History; African Modernism in America: Decolonization, Civil Rights and the Cold War**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Colloquium to investigate a specific topic in depth.

0102	Perrin Lathrop	Seats (Total: 15)
	W 9:00am - 11:30am	ASY 3217

ARTH489Z **Special Topics in Art History; Art in London**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

ARTH498 **Directed Studies in Art History I**

(Perm req)

Credits: 2-3

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

ARTH499 **Honors Thesis**

(Perm req)

Credits: 3-6

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

ARTH708G **Seminar in Ancient Art and Archaeology; Painting the Wine-Dark Sea: Mural Traditions in Bronze Greece**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

This course explores the tradition of wall painting in Bronze Age Greece, ca. 3000-1100 BCE. Discussions will investigate murals in their archaeological and social contexts and consider larger questions of iconographic choice and transmission, tools and technology, color and and pigments, and the issues surrounding modern restorations and reconstructions.

0101	Emily Egan	Seats (Total: 6)
	Th 12:30pm - 3:00pm	ASY 4304

ARTH768 **Seminar in Latin American Art and Archaeology**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

0101	Abigail McEwen	Seats (Total: 6)
	W 3:00pm - 5:30pm	ASY 3217

ARTH779G **Seminar in Japanese Art; Art Worlds -- of Empire, War, and Occupation**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

The notion of an art world (gadan) has been central to the Japanese modern practice and conception of art. The art world was a site of conflict over inclusions and exclusions, authority and resistance, and collectivism and individualism. Conceived in relation to an international art world centered in Europe, the art world also responded to Japan's geopolitical engagement with other worlds : first, its growing Asian empire; in the Pacific War, its Allied enemies and Axis friends; and then, the new possibilities and limitations that came with defeat and American occupation. In this seminar we will trace the permutations of the art world over the course of roughly twenty-five tumultuous years, and examine, with a close focus on art objects and archival materials, the changing social role of art and the relationships that adhered between art, artist, and audience during this time of transformation.

0101	Alicia Volk	Seats (Total: 6)
	Tu 12:30pm - 3:00pm	ASY 4304

ARTH789D **Selected Topics in Art History; At Home with Things**

Credits: 3 Grading Method: Regular, Audit

This seminar will look at objects in domestic settings during the early modern period, principally c. 1500-1650, considering the material nature of domesticit in England, The Netherlands, and Italy. Our exploration will cover rooms from kitchen to study, from bedroom to reception chamber. We will think about objects of use and objects for show, thingsthat are gifted between persons and things intensely personal to asingle individual, small things worn on the body and large things rootedin a specific household location. Objects that are mundane will beas important to our investigation as things that are rare and precious. We will consider things that are made at home by family members, and locally by craftsmen, but also things being imported from other parts ofthe globe and domesticized within the home. The storage, arrangement, and display of objects will also be important issues.

0101	Elizabeth Honig	Seats (Total: 6)
	F 12:30pm - 3:00pm	ASY 4304

ARTH798 **Directed Graduate Studies in Art History**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Contact department for information to register for this course.

ARTH799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ARTH898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

ARTH899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ARTT Art Studio Spring 2022

ARTT100 **Two-Dimensional Design Fundamentals**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Principles and elements of two-dimensional design. Introduction to visual communication.

Students must pay a $40.00 studio lab fee.

0301	Wendy Jacobs MW 12:30pm - 3:00pm	Seats (Total: 18) ASY 2318	Lab
0401	Wendy Jacobs MW 12:30pm - 3:00pm	Seats (Total: 18) ASY 2318	Lab
0501	Wendy Jacobs MW 3:30pm - 6:00pm	Seats (Total: 18) ASY 2318	Lab
0601	Wendy Jacobs MW 3:30pm - 6:00pm	Seats (Total: 18) ASY 2318	Lab
0701	Peter Cullen TuTh 12:30pm - 3:00pm	Seats (Total: 18) ASY 2318	Lab
0801	Peter Cullen TuTh 12:30pm - 3:00pm	Seats (Total: 18) ASY 2318	Lab

ARTT110 **Elements of Drawing I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Fundamental concepts, media, and processes of drawing. Emphasis on observation and representation in combination with individual expression. Subject matter includes still life, human figure, nature, the built environment, and conceptual projects.

Students must pay a $40.00 studio lab fee.

0101	Peter Cullen TuTh 9:00am - 11:30am	Seats (Total: 18) ASY 2317	Lab
0201	Peter Cullen TuTh 9:00am - 11:30am	Seats (Total: 18) ASY 2321	Lab
0301	Jason Kass MW 3:30pm - 6:00pm	Seats (Total: 18) ASY 2317	Lab
0401	Jason Kass MW 3:30pm - 6:00pm	Seats (Total: 18) ASY 2321	Lab
0501	Jowita Wyszomirska TuTh 12:30pm - 3:00pm	Seats (Total: 18) ASY 2317	Lab
0601	Jowita Wyszomirska TuTh 12:30pm - 3:00pm	Seats (Total: 18) ASY 2321	Lab
0701	Irene Pantelis MW 12:30pm - 3:00pm	Seats (Total: 18) ASY 2317	Lab
0801	Irene Pantelis MW 12:30pm - 3:00pm	Seats (Total: 18) ASY 2321	Lab
0901	Matthew McLaughlin MW 9:00am - 11:30am	Seats (Total: 18) ASY 2317	Lab
1001	Matthew McLaughlin MW 9:00am - 11:30am	Seats (Total: 18) ASY 2321	Lab

ARTT150 **Introduction to Art Theory**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA | General Education: DSHU

Fundamental concepts of global, philosophic, and critical art theory examined through various historic and contemporary texts, and the analysis of works of art.

0101	Jason Kass MW 1:00pm - 1:50pm M 12:00pm - 12:50pm	Seats (Total: 25) ASY 2309 ASY 3215	Discussion

0102	Jason Kass MW 1:00pm - 1:50pm W 12:00pm - 12:50pm	Seats (Total: 25) ASY 2309 ASY 3203	Discussion
0103	Jason Kass MW 1:00pm - 1:50pm W 2:00pm - 2:50pm	Seats (Total: 25) ASY 2309 ASY 3219	Discussion
0201	Rex Weil TuTh 3:30pm - 4:20pm Th 2:00pm - 2:50pm	Seats (Total: 25) ASY 2309 ASY 3219	Discussion
0202	Rex Weil TuTh 3:30pm - 4:20pm Tu 12:30pm - 1:20pm	Seats (Total: 25) ASY 2309 ASY 3219	Discussion
0203	Rex Weil TuTh 3:30pm - 4:20pm Th 12:30pm - 1:20pm	Seats (Total: 25) ASY 2309 ASY 3219	Discussion

ARTT200 **Three-Dimensional Art Fundamentals**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT100 and ARTT110.

Fundamental concepts of three-dimensional form and space examined through the manipulation and organization of various materials.

Students must pay a $40.00 studio lab fee.

0101	Foon Sham TuTh 12:30pm - 3:00pm	Seats (Total: 18) ASY 1311	Lab
0201	Steven Jones TuTh 9:00am - 11:30am	Seats (Total: 18) ASY 1311	Lab
0301	Alyssa Imes MW 3:30pm - 6:00pm	Seats (Total: 18) ASY 1311	Lab

ARTT210 **Elements of Drawing II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT110.

Continuation of ARTT110 with additional emphasis on color, figure drawing, and contemporary issues.

Students must pay a $40.00 studio lab fee.

0101	Irene Pantelis TuTh 9:00am - 11:30am	Seats (Total: 16) ASY 2315	Lab
0201	Emily Conover TuTh 3:30pm - 6:00pm	Seats (Total: 16) ASY 2315	Lab
0301	Julia Kwon MW 12:30pm - 3:00pm	Seats (Total: 16) ASY 2315	Lab
0401	Julia Kwon MW 3:30pm - 6:00pm	Seats (Total: 16) ASY 2315	Lab

ARTT255 **Introduction to Digital Art and Design Processes**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT100 and ARTT110. Credit only granted for: ARTT255 or ARTT354. Formerly: ARTT354.

Introduction to basic software and principles of digital imaging, and how they are applied to art and design. Topics covered: Digital image construction and manipulation, Vector-Based digital techniques layout, typography, etc), time-based digital techniques (video and audio composition and manipulation), and basic interactivity (web-design). Digital media used to explore visual principles established in ARTT100.

Students must pay a $40.00 studio lab fee.

0101	Shannon Collis Class time/details on ELMs	Seats (Total: 18) ONLINE	Lab
0201	Narendra Ratnapala TuTh 12:30pm - 3:00pm	Seats (Total: 18) ATL 1410	Lab
0301	Narendra Ratnapala TuTh 3:30pm - 6:00pm	Seats (Total: 18) ATL 1410	Lab

ARTT320 **Elements of Painting**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Concepts and fundamental processes of oil and/or acrylic painting.

Students must pay a $40.00 studio lab fee.

0101	Brandon Donahue MW 9:00am - 11:30am	Seats (Total: 18) ASY 3316	Lab
0201	Emily Conover TuTh 12:30pm - 3:00pm *This section uses acrylic paint only.*	Seats (Total: 18) ASY 3316	Lab
0301	Richard Klank MW 9:00am - 11:30am	Seats (Total: 12) ASY 3322	Lab

ARTT330 **Elements of Sculpture: Metal Casting**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Sculptural concepts and fundamental processes related to metal casting.

Students must pay a $40.00 studio lab fee.

0101	John Ruppert MW 12:30pm - 3:00pm	Seats (Total: 12) ASY 1310	Lab

ARTT330H **Elements of Sculpture: Metal Casting**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Sculptural concepts and fundamental processes related to metal casting.

Restricted to departmental honors students only. Students must pay a $40.00 studio lab fee.

0101	John Ruppert	Seats (Total: 2)	
	MW 12:30pm - 3:00pm	ASY 1310	Lab

ARTT331 **Elements of Sculpture: Steel**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Sculptural concepts and fundamental processes related to steel fabrication; torch cutting, welding, hot forging, and finishing.

Students must pay a $40.00 studio lab fee.

0101	John Ruppert	Seats (Total: 10)	
	MW 3:00pm - 5:30pm	ASY 1314	Lab

ARTT333 **Elements of Sculpture: Wood and Mixed Media**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Sculptural concepts and fundamental processes using wood and mixed media.

Students must pay a $40.00 studio lab fee.

0101	Foon Sham	Seats (Total: 12)	
	TuTh 3:00pm - 5:30pm	ASY 1311	Lab

ARTT333H **Elements of Sculpture: Wood and Mixed Media**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Sculptural concepts and fundamental processes using wood and mixed media.

Restricted to departmental honors students only. Students must pay a $40.00 studio lab fee.

0101	Foon Sham	Seats (Total: 2)	
	TuTh 3:00pm - 5:30pm	ASY 1311	Lab

ARTT341 **Elements of Printmaking: Woodcut and Relief**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Concepts and fundamental processes related to woodcuts, linocuts, and other relief printing media.

Students must pay a $40.00 studio lab fee.

0101	Jessica Gatlin MW 12:30pm - 3:00pm	Seats (Total: 12) ASY 1317	Lab

ARTT341H **Elements of Printmaking: Woodcut and Relief**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Concepts and fundamental processes related to woodcuts, linocuts, and other relief printing media.

Restricted to departmental honors students only. Students must pay a $40.00 studio lab fee.

0101	Jessica Gatlin MW 12:30pm - 3:00pm	Seats (Total: 2) ASY 1317	Lab

ARTT343 **Elements of Printmaking: Screen Printing**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Concepts and fundamental processes related to silkscreen printing.

Students must pay a $40.00 studio lab fee.

0101	Justin Strom TuTh 12:30pm - 3:00pm	Seats (Total: 12) ASY 1317	Lab
0201	Justin Strom TuTh 3:30pm - 6:00pm	Seats (Total: 12) ASY 1317	Lab

ARTT343H **Elements of Printmaking: Screen Printing**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Concepts and fundamental processes related to silkscreen printing.

Restricted to departmental honors students only. Students must pay a $40.00 studio lab fee.

0101	Justin Strom TuTh 12:30pm - 3:00pm	Seats (Total: 2) ASY 1317	Lab
0201	Justin Strom TuTh 3:30pm - 6:00pm	Seats (Total: 2) ASY 1317	Lab

ARTT353 **Elements of Photography**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Introduction to digital photographic image-making. With an emphasis on technical, aesthetic and conceptual understanding of the photographic medium, camera operation, and photographic composition. Students must have access to a Digital SLR or mirrorless camera capable of interchangeable lenses for this class.

Contact department for information to register for this course.

ARTT357 **Interactive Design**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: ARTT355 and ARTT356.

In-depth exploration of interactive design and website construction. Emphasis on concept-driven and community-based projects using variety of interactive software programs.

Students must pay a $40.00 studio lab fee.

0101	Rieko Chacey MW 3:00pm - 5:30pm	Seats (Total: 25) ASY 2322	Lab

ARTT361 **Design Literacy: Decoding Our Visual Culture**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT355 and ARTT356. Credit only granted for: ARTT361 or ARTT489L. Formerly: ARTT489L.

Holistic presentation of design history and theory from pre-history to present. Covers primarily visual communication design and includes the interrelationship of interior-, furniture-, industrial-, fashion-design, and architecture.

0101	Rex Weil	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	ASY 2322

ARTT369T **Special Topics in Study Abroad III; Elements of Photography**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTT370 **Elements of Digital Media**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT150, ARTT200, ARTT210, and ARTT255; or permission of ARHU-Art department.

Exploration of image creation and manipulation, interactivity, and linkages between digital audio and video. Emphasis on issues in contemporary digital art.

Students must pay a $40.00 studio lab fee.

0201	Brayan Pinto, Mollye Bendell	Seats (Total: 14)
	TuTh 3:00pm - 5:30pm	ASY 3304

ARTT386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of ARHU-Art department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

ARTT389 **Department of Art Undergraduate Teaching Assistantship**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Individual contractual agreement with faculty/mentor. Individualized assistantship in the teaching of a specified department course offering. Must have previously received an "A" grade for the class to be assisting.

Contact department for information to register for this course.

ARTT399 **Department of Art Research Assistantship**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Individual contractual agreement with faculty/mentor. Individualized experiential learning developed in relation to art-related research issues.

Contact department for information to register for this course.

ARTT418B **Advanced Drawing Studio; Advanced Drawing: Contemporary Approach**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Multi-level drawing studio emphasizing advanced concepts and processes related to drawing; emphasis on contemporary art issues and individual directions.

Prerequisite: ARTT150, ARTT200 and ARTT210; plus one 300-level studio course; or permission of Department. Repeatable to 12 credits. Students must pay a $40.00 studio lab fee. Multi-level drawing studio emphasizing advanced concepts and processes related to drawing; emphasis on contemporary art issues and individual directions.

0101	Matthew McLaughlin MW 3:30pm - 6:00pm	Seats (Total: 16) ASY 3312	Lab
0201	Jowita Wyszomirska TuTh 3:30pm - 6:00pm	Seats (Total: 16) ASY 2314	Lab
0301	Matthew McLaughlin MW 12:30pm - 3:00pm	Seats (Total: 16) ASY 3312	Lab

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ARTT418H **Advanced Drawing Studio; Honors Advanced Drawing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Multi-level drawing studio emphasizing advanced concepts and processes related to drawing; emphasis on contemporary art issues and individual directions.

Restricted to departmental honors students only. Prerequisite: ARTT150, ARTT200, and ARTT210; plus one 300-level studio course; and permission of department. Students must pay a $40.00 studio lab fee.

0101	Matthew McLaughlin MW 3:30pm - 6:00pm	Seats (Total: 2) ASY 3312	 Lab
0201	Jowita Wyszomirska TuTh 3:30pm - 6:00pm	Seats (Total: 2) ASY 2314	 Lab
0301	Matthew McLaughlin MW 12:30pm - 3:00pm	Seats (Total: 2) ASY 3312	 Lab

ARTT428 **Advanced Painting Studio; Advanced Painting**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Multi-level painting studio emphasizing advanced concepts and processes related to oil and acrylic painting; emphasis on contemporary art issues and individual directions in chosen media.

Prerequisite: ARTT320 or permission of department. Repeatable to 12 credits. Students must pay a $40.00 studio lab fee. Multi-level painting studio emphasizing advanced concepts and processes related to oil and acrylic painting; emphasis on contemporary art issues and individual directions.

0101	Patrick Craig TuTh 3:30pm - 6:00pm *This section uses acrylic paint only.*	Seats (Total: 18) ASY 3312	 Lab
0301	Richard Klank MW 12:30pm - 3:00pm	Seats (Total: 16) ASY 3318	 Lab

ARTT428H **Advanced Painting Studio; Honors Advanced Painting**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Multi-level painting studio emphasizing advanced concepts and processes related to oil and acrylic painting; emphasis on contemporary art issues and individual directions in chosen media.

Restricted to departmental honors students only. Prerequisite: ARTT320 and permission of department. Students must pay a $40.00 studio lab fee.

0101	Patrick Craig TuTh 3:30pm - 6:00pm *This section uses acrylic paint only.*	Seats (Total: 2) ASY 3312	Lab
0301	Richard Klank MW 12:30pm - 3:00pm	Seats (Total: 2) ASY 3318	Lab

ARTT428X **Advanced Painting Studio**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Multi-level painting studio emphasizing advanced concepts and processes related to oil and acrylic painting; emphasis on contemporary art issues and individual directions in chosen media.

Contact department for information to register for this course.

ARTT438A **Advanced Sculpture Studio**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

Prerequisite: Must have completed one 300-level sculpture course; or permission of instructor. Students must paya $40.00 studio lab fee. Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

0101	John Ruppert MW 12:30pm - 3:00pm	Seats (Total: 4) ASY 1310	Lab

ARTT438D **Advanced Sculpture Studio**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

Prerequisite: Must have completed ARTT333 sculpture course; or permission of instructor. Students must pay a $40.00 studio lab fee. Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

0101	Foon Sham TuTh 3:00pm - 5:30pm	Seats (Total: 3) ASY 1311	Lab

ARTT438E **Advanced Sculpture Studio**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

Prerequisite: Must have completed one 300-level sculpture course; or permission of instructor. Students must paya $40.00 studio lab fee. Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

0101	John Ruppert MW 3:00pm - 5:30pm	Seats (Total: 4) ASY 1314	 Lab

ARTT438H **Advanced Sculpture Studio**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

Prerequisite: Must have completed one 300-level sculpture course; or permission of instructor. Restricted to departmental honors students only. Students must paya $40.00 studio lab fee. Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

0101	Foon Sham TuTh 3:00pm - 5:30pm	Seats (Total: 2) ASY 1311	 Lab
0201	John Ruppert MW 12:30pm - 3:00pm	Seats (Total: 2) ASY 1314	 Lab
0301	John Ruppert MW 3:00pm - 5:30pm	Seats (Total: 2) ASY 1314	 Lab

ARTT455 **Three Dimensional Graphic Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ARTT355, ARTT356, and ARTT357. Recommended: ARTT333. Credit only granted for: ARTT352 or ARTT455. Formerly: ARTT352.

Continued exploration of advanced graphic design practices with primary emphasis on 3-D object and packaging design. Includes research, course reading discussion, oral presentations, and specific project assignments which will require a proficient level of hand-skills (craft) and computer skills.

Students must pay a $40.00 studio lab fee.

0101	Rieko Chacey	Seats (Total: 25)	
	MW 12:30pm - 3:00pm	ASY 2322	Lab

ARTT458 **Graphic Design Portfolio; Advanced Graphic Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Creation of a comprehensive professional portfolio. Curriculum includes portfolio preparation and presentation, contracts, copyright issues, interviewing skills, resume and cover-letter writing, design briefs and proposals, and freelance business issues. Portfolio presentation includes basics of book arts.

Students must pay a $40.00 studio lab fee. Print publication and self promotion design.

0101	Antwon Key	Seats (Total: 25)	
	TuTh 3:30pm - 6:00pm	ASY 2322	Lab

ARTT469 **Professional Practice**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Business aspects of being an artist, with an emphasis on starting and maintaining a professional career.

Restriction: Senior standing or permission of Art Department. Business aspects of being an artist, with an emphasis on starting and maintaining a professional career.

0101	Steven Jones	Seats (Total: 15)	
	Tu 12:30pm - 3:00pm	ASY 2314	

ARTT479D **Advanced Digital Media Studio; Immersive and Virtual Environments**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Variable multi-level studio emphasizing advanced concepts and processes related to time-based, projection, installation, interactive, and audio/visual integrated digital art. Emphasis on contemporary art issues and individual directions.

Prerequisite: ARTT370 or permission of Department. Introduction to the uses of game development software in an artistic context. Practical examination of interactive, immersive and installation art as mediated through the context of real-time computer generated imagery and game engine methodologies. Students must pay a $40.00 studio lab fee.

0101	Mollye Bendell, Lynn Nguyen	Seats (Total: 14)	
	TuTh 6:00pm - 8:30pm	ASY 3304	Lab

ARTT479E **Advanced Digital Media Studio; Art and Electronics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Variable multi-level studio emphasizing advanced concepts and processes related to time-based, projection, installation, interactive, and audio/visual integrated digital art. Emphasis on contemporary art issues and individual directions.

Prerequisite: ARTT370 or permission of Department. Studio course exploring the basics of building circuits with electronic components, motors, sensors, and Arduino technology in the context of interactive art and kinetic sculpture. Students must pay a $40.00 studio lab fee.

0101	Cy Keener, Dani Feng	Seats (Total: 14)	
	MW 12:30pm - 3:00pm	ASY 3304	Lab

ARTT479H **Advanced Digital Media Studio; Honors Advanced Digital Media**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Variable multi-level studio emphasizing advanced concepts and processes related to time-based, projection, installation, interactive, and audio/visual integrated digital art. Emphasis on contemporary art issues and individual directions.

Prerequisite: ARTT370. Restricted to Departmental Honors students. Students must pay a $40.00 studio lab fee. Basics of sound recording, mixing, and processing, as well as creative applications of sound used for screen-based practices, performance and installation art. Theoretical concepts central to sound as an artistic medium are also introduced.

0301	Cy Keener	Seats (Total: 2)	
	MW 12:30pm - 3:00pm	ASY 3304	Lab
0401	Mollye Bendell	Seats (Total: 2)	
	TuTh 6:00pm - 8:30pm	ASY 3304	Lab

ARTT489H **Advanced Special Topics in Art**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced studio art and theory within the context of a special topic.

Prerequisite: permission of department. This course is restricted to departmental Honors students. Students must pay a $40.00 laboratory studion fee.

0101	John Ruppert MW 12:30pm - 3:00pm	Seats (Total: 2) ONLINE	Lab
0201	John Ruppert MW 3:30pm - 6:00pm	Seats (Total: 2) ONLINE	Lab
0301	Foon Sham TuTh 3:30pm - 6:00pm	Seats (Total: 2) ONLINE	Lab
0401	Justin Strom TuTh 12:30pm - 3:00pm	Seats (Total: 2) ONLINE	Lab
0501	Jessica Gatlin MW 9:00am - 11:30am	Seats (Total: 2) ASY 1317	Lab
0601	Antwon Key TuTh 3:30pm - 6:00pm	Seats (Total: 2) ASY 2322	Lab

ARTT489P **Advanced Special Topics in Art; Experimental Film and Video**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced studio art and theory within the context of a special topic.

Contact department for information to register for this course.

ARTT489Q **Advanced Special Topics in Art**

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Advanced studio art and theory within the context of a special topic.

Prerequisite: ARTT341 or ARTT343; or permission of instructor. Students must pay a $40.00 studio lab fee. Explores various traditional and digital media hybrids while navigating alternative studio-based approaches. Students will be encouraged to use a range of imaging techniques such as photography, drawing, painting, collage and digital media with a focus on experimentation with materials, content and form. Individual and group critiques, readings, online presentations,and exhibitions will help to develop each student'spersonal approach to art making, problem solving, and visual communication.

0101	Jessica Gatlin	Seats (Total: 16)	
	MW 9:00am - 11:30am	ASY 1317	Lab

ARTT498A **Directed Studies in Studio Art**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Advanced independent work in Studio Art. Meeting with faculty and studio time arranged.

Students must pay a $40.00 studio lab fee.

Contact department for information to register for this course.

ARTT498B **Directed Studies in Studio Art**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Advanced independent work in Studio Art. Meeting with faculty and studio time arranged.

Students must pay a $40.00 studio lab fee.

Contact department for information to register for this course.

ARTT498H **Directed Studies in Studio Art; Honors Thesis**

(Perm req)

Credits: 2-3 Grading Method: Regular, Pass-Fail, Audit

Advanced independent work in Studio Art. Meeting with faculty and studio time arranged.

Restricted to departmental honors students only. Prerequisite: permission of department. Students must pay a $40.00 studio lab fee.

Contact department for information to register for this course.

ARTT618 **Drawing; Drawing**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Independent studies in drawing for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT628 **Painting; Painting**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Graduate painting for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT638 **Sculpture; Sculpture**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Independent studies in sculpture for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT648 **Printmaking; Printmaking**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Independent studies in printmaking for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT698A **Directed Graduate Studies in Studio Art**

(Perm req)

Credits: 1-4 Grading Method: Regular, Audit

Independent work. Meetings with faculty and studio time arranged.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT698B **Directed Graduate Studies in Studio Art**

(Perm req)

Credits: 1-4 Grading Method: Regular, Audit

Independent work. Meetings with faculty and studio time arranged.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT698C **Directed Graduate Studies in Studio Art; Graduate Teaching Practicum**

(Perm req)

Credits: 1-4 Grading Method: Regular, Audit

Independent work. Meetings with faculty and studio time arranged.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT699A **Directed Graduate Studies in Studio Art**

(Perm req)

Credits: 1-4 Grading Method: Regular, Audit

Independent graduate studies.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT699B **Directed Graduate Studies in Studio Art**

(Perm req)

Credits: 1-4 Grading Method: Regular, Audit

Independent graduate studies.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT718 **Drawing; Drawing**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Independent studies in drawing for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT728 **Painting; Painting**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Independent studies in painting for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT738 **Sculpture; Sculpture**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Independent studies in sculpture for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT748 **Printmaking; Printmaking**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Independent studies in printmaking for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT768 **Graduate Colloquium**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Examines various aspects of art, art theory and criticism in a contemporary and multi-cultural context. Relates student work to this context.

Students must pay a $60.00 studio lab fee.

0101	Brandon Donahue	Seats (Total: 18)
	Th 6:30pm - 9:00pm	ASY 3211

ARTT798A **Directed Graduate Studies in Studio Art**

(Perm req)

Credits: 1-4

Grading Method: Regular, Audit

Independent graduate studies.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT798B **Directed Graduate Studies in Studio Art**

(Perm req)

Credits: 1-4 Grading Method: Regular, Audit

Independent graduate studies.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ASTR Astronomy Spring 2022

ASTR100 **Introduction to Astronomy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: PS General Education: DSNS

Credit only granted for: ASTR100, ASTR101, or ASTR120.

An elementary course in descriptive astronomy, especially appropriate for non-science students. Topics include the Sun, Moon, planets, stars, and nebulae, galaxies, and evolution of the Universe.

Discussion sections do not meet the first week of classes. Attend lecture before coming to discussion section.

0101	Thaddeus Komacek TuTh 9:30am - 10:45am M 10:00am - 10:50am	Seats (Total: 40) PHY 1412 ATL 2400	Discussion
0102	Thaddeus Komacek TuTh 9:30am - 10:45am M 2:00pm - 2:50pm	Seats (Total: 40) PHY 1412 ATL 2400	Discussion
0103	Thaddeus Komacek TuTh 9:30am - 10:45am M 3:00pm - 3:50pm	Seats (Total: 40) PHY 1412 ATL 2400	Discussion
0104	Thaddeus Komacek TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 40) PHY 1412 ATL 2400	Discussion

0105	Thaddeus Komacek TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 40) PHY 1412 ATL 2400	 Discussion
0106	Thaddeus Komacek TuTh 9:30am - 10:45am F 1:00pm - 1:50pm	Seats (Total: 40) PHY 1412 ATL 2400	 Discussion

ASTR101 **General Astronomy**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: PL | General Education: DSNL

Credit only granted for: ASTR100, ASTR101, or ASTR120.

Descriptive astronomy, appropriate for non-science majors. Sun, moon, planets, stars, nebulae, galaxies and evolution. Laboratory exercises include use of photographic material, computer simulations, and standard laboratory equipment.

Discussion sections and lab do not meet the first week of classes. Attend lecture before coming to discussion or lab section. Students must pay a $50.00 Laboratory Materials fee.

0101	Massimo Ricotti TuTh 11:00am - 12:15pm Tu 5:30pm - 7:30pm Tu 3:30pm - 4:20pm	Seats (Total: 20) PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0102	Massimo Ricotti TuTh 11:00am - 12:15pm W 8:30am - 10:30am Tu 3:30pm - 4:20pm	Seats (Total: 20) PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0103	Massimo Ricotti TuTh 11:00am - 12:15pm W 11:00am - 1:00pm W 10:00am - 10:50am	Seats (Total: 20) PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0104	Massimo Ricotti TuTh 11:00am - 12:15pm Th 8:30am - 10:30am W 10:00am - 10:50am	Seats (Total: 20) PHY 1412 ATL 0254 ATL 2400	 Lab Discussion

0105	Massimo Ricotti TuTh 11:00am - 12:15pm W 6:00pm - 8:00pm W 11:00am - 11:50am	Seats (Total: 20) PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0106	Massimo Ricotti TuTh 11:00am - 12:15pm F 1:00pm - 3:00pm W 11:00am - 11:50am	Seats (Total: 20) PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0107	Massimo Ricotti TuTh 11:00am - 12:15pm W 1:00pm - 3:00pm W 12:00pm - 12:50pm	Seats (Total: 20) PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0108	Massimo Ricotti TuTh 11:00am - 12:15pm F 9:00am - 11:00am W 12:00pm - 12:50pm	Seats (Total: 20) PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0109	Massimo Ricotti TuTh 11:00am - 12:15pm Th 6:00pm - 8:00pm W 2:00pm - 2:50pm	Seats (Total: 20) PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0110	Massimo Ricotti TuTh 11:00am - 12:15pm Th 3:30pm - 5:30pm W 2:00pm - 2:50pm	Seats (Total: 20) PHY 1412 ATL 0254 ATL 2400	 Lab Discussion

ASTR121 **Introductory Astrophysics II - Stars and Beyond**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: PL | General Education: DSNL

Prerequisite: ASTR120 and MATH140; or permission of CMNS-Astronomy department.

For students majoring in astronomy or with a strong interest in science. Includes instrumentation, stellar properties, stellar evolution, structure of the galaxy, other galaxies, large scale structure, Big Bang Theory, and future of the universe.

0101	Stuart Vogel	Seats (Total: 15)	
	TuTh 11:00am - 12:15pm M 11:00am - 1:00pm F 1:00pm - 1:50pm	ESJ 2309 ATL 0224 ATL 2428	 Lab Discussion
0102	Stuart Vogel	Seats (Total: 15)	
	TuTh 11:00am - 12:15pm M 2:00pm - 4:00pm F 2:00pm - 2:50pm	ESJ 2309 ATL 0224 ATL 2428	 Lab Discussion

ASTR220 **Collisions in Space - The Threat of Asteroid Impacts**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: PS | General Education: DSNS, SCIS

Restriction: Must not be in Astronomy program. Additional information: Course is open to Astronomy and Planetary Sciences minors.

How can we defend our planet against a possible asteroid impact? Collisions in Space will evaluate the threat of asteroid impacts with the Earth using knowledge of asteroid characteristics and orbits. The merits of possible defense plans will be discussed, as well as the budgetary and political concerns associated with implementing any such plan. Appropriate for non-science majors.

0101	Derek Richardson	Seats (Total: 30)	
	MW 2:00pm - 3:15pm Tu 3:30pm - 4:20pm	ESJ 1202 ATL 1114	 Discussion
0102	Derek Richardson	Seats (Total: 30)	
	MW 2:00pm - 3:15pm Tu 4:30pm - 5:20pm	ESJ 1202 ATL 1114	 Discussion

ASTR230 **The Science and Fiction of Planetary Systems**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: PS | General Education: DSNS, SCIS

Prerequisite: Must have math eligibility of MATH115 or higher; or MATH113.

Have you ever wondered if humans will ever terraform Mars or Europa so we could live there without a spacesuit? Has it ever crossed your mind how lucky you are that you live on a water-rich planet with an oxygen-rich atmosphere? Have you ever suspected novelists and scriptwriters of creating ridiculous planets that violate scientific laws? Does the fate of our planet's thin biosphere keep you up at night? How common is life in the Universe? These are difficult questions, but armed with the right information, you can answer all of them. The Science and Fiction of Planetary Systems will help you develop a deeper understanding of why planets are the way they are. Along the way, you'll see examples of mistakes made in classic science fiction movies, novels and short stories and get the chance to invent your own plausible planets!

0101	Alan Peel W 9:00am - 9:50am MWF 11:00am - 11:50am	Seats (Total: 36) PHY 1410 ESJ B0320	 Discussion
0102	Alan Peel W 9:00am - 9:50am MWF 12:00pm - 12:50pm	Seats (Total: 42) PHY 1410 ESJ 2309	 Discussion

ASTR288 **Special Projects in Astronomy**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Independent study, short research projects, tutorial reading, and assisting with faculty research and teaching under special supervision.

A faculty sponsor must be found by the students prior to enrollment.

Contact department for information to register for this course.

ASTR288I **Special Projects in Astronomy; Introduction to the Astronomy Major**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Independent study, short research projects, tutorial reading, and assisting with faculty research and teaching under special supervision.

Restriction: Permission of CMNS-Astronomy department. Introduces new Astronomy majors to the possible career paths that they might choose upon completion of an undergraduate Astronomy degree, soft skills that would be useful in these possible careers, and useful skills and knowledge to better prepare them for research as an undergraduate.

0101	Jordan Ealy M 4:00pm - 4:50pm	Seats (Total: 15) ATL 1106	

ASTR300 **Stars and Stellar Systems**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNS

Prerequisite: ASTR100 or ASTR101; and completion of the CORE Distributive Studies requirement in Mathematics and Sciences or General Education Fundamental Studies requirement in Mathematics. Or permission of CMNS-Astronomy department.

Designed primarily for non-science majors. Study of stars-types, properties, evolution, and distribution in space; supernovae, pulsars, and black holes.

0101	Alan Peel TuTh 9:30am - 10:45am	Seats (Total: 60) ATL 2400	

ASTR315 **Astronomy in Practice**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNL, DSSP

Restriction: Must not be in Astronomy program. Additional information: Appropriate for non-science majors.

Students learn astronomy research techniques and contribute significantly to the existing body of astronomical knowledge. Students apply methods and tools such as celestial coordinates, telescopes and CCD cameras, and appropriate analysis software to a specific observational goal. Students produce a work detailing their scientific result which will be submitted for publication in a professional venue. Each semester, the course focuses on a specific astronomical topic or type of object, such as asteroids, extrasolar planets, supernovae in other galaxies, quasars, etc.

0101	Melissa Hayes-Gehrke TuTh 2:00pm - 3:15pm F 11:00am - 12:50pm	Seats (Total: 24) ESJ 2309 ATL 0224	 Lab
0102	Melissa Hayes-Gehrke TuTh 2:00pm - 3:15pm M 9:00am - 10:50am	Seats (Total: 24) ESJ 2309 ATL 0224	 Lab

ASTR320 **Theoretical Astrophysics**

Credits: 3 | Grading Method: Regular, Pass-Fail

Prerequisite: ASTR121; and (PHYS270 and PHYS271; or PHYS273). Restriction: Must be in Astronomy program.

Application of selected physics concepts in an astrophysical context. Topics would include gravity (Keplerian motion, Virial theorem, Roche limit, dynamical friction); gas dynamics (hydrostatic equilibrium, stellar models, spiral density waves), thermodynamics and statistical physics (Boltzmann distribution, Wien displacement, convective instability, degenerate gas); atomic physics (quantum principles, H atom, permitted and forbidden lines); radiation processes (line radiation, opacity).

0101	Lee Mundy	Seats (Total: 30)	
	TuTh 11:00am - 12:15pm	ATL 2428	
	W 1:00pm - 1:50pm	ATL 2428	Discussion

ASTR330 **Solar System Astronomy**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNS

Prerequisite: ASTR100 or ASTR101; and completion of the CORE Distributive Studies requirement in Mathematics and Sciences or the General Education Fundamental Studies requirement in Mathematics. Or permission of CMNS-Astronomy department. Credit only granted for: ASTR330 or GEOL212.

Designed primarily for non-science majors. The structure of planets and of their atmospheres, the nature of comets, asteroids, and satellites. Comparison of various theories for the origin of the solar system. Emphasis on a description of recent data and interpretation.

0101	Douglas Hamilton	Seats (Total: 60)
	TuTh 2:00pm - 3:15pm	IRB 1116

ASTR350 **Black Holes**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNS

Prerequisite: ASTR100 or ASTR101; and completion of the CORE Distributive Studies requirement in Mathematics and Sciences or General Education Fundamental Studies requirement in Mathematics. Or permission of CMNS-Astronomy department. Credit only granted for: ASTR398B or ASTR350. Formerly: ASTR398B.

Black holes are the most exotic prediction of Einstein's Theory of General Relativity and, amazingly, the Universe seems to manufacture these bizarre objects in copious numbers. As well as being the ultimate laboratory for studying the nature of space and time, they drive some of the most energetic and extreme phenomena known to astronomers (with quasars and gamma-ray bursts being just a couple of examples). In this introduction to the physics and astrophysics of black holes, we start by examining the basic physics of black holes, which fundamentally means understanding gravity. We then look at the nature of stellar-mass black holes and supermassive black holes. We will discuss the fairly recent realization that black holes may be crucial agents for regulating the growth of galaxies. Finally, we dive into the realm of theoretical physics and probe how black holes may provide a route for uncovering new laws of physics governing the structure of space and time.

0101	Michael Miller	Seats (Total: 60)
	TuTh 12:30pm - 1:45pm	ATL 2400

ASTR399 **Honors Seminar**

(Perm req)

Credits: 1-16 Grading Method: Regular, Pass-Fail, Audit

Credit according to work done.

Contact department for information to register for this course.

ASTR421 **Galaxies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ASTR121; and (PHYS271 and PHYS270; or PHYS273). Or permission of CMNS-Astronomy department.

Introduction to structure, kinematics, and dynamics of normal and peculiar galaxies. Quantitative descriptions of normal spiral galaxies (like our Milky Way) and elliptical galaxies will be followed by more exotic considerations such as interacting and merging galaxies, and active galactic nuclei.

0101	Richard Mushotzky	Seats (Total: 30)
	TuTh 9:30am - 10:45am	ATL 2330

ASTR430 **The Solar System**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ASTR121; and (PHYS271 and PHYS270; or PHYS273). Or permission of CMNS-Astronomy department.

Formation and evolution of the Solar System. Planetary surfaces, interiors, atmospheres, and magnetospheres. Asteroids, comets, planetary satellites, and ring systems. Emphasis on using basic physics to understand observed properties of the Solar System. Intended for students majoring in the physical sciences.

0101	Jessica Sunshine	Seats (Total: 30)
	WF 2:00pm - 3:15pm	ATL 1113

ASTR498 **Special Problems in Astronomy**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Research or special study. Credit according to work done.

Contact department for information to register for this course.

ASTR610 **Astronomical Instrumentation and Techniques**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of CMNS-Astronomy department.

Review of Maxwell's equations; designs of telescopes, spectrographs, modern detectors; basic concepts for radio detectors and telescopes; interferometry and data processing.

0101	Alberto Bolatto	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	ATL 0201

ASTR688C **Special Topics in Modern Astronomy; Seminar in Modern Astronomy Research**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

Special topics such as extragalactic radio sources, plasma astrophysics, the H.R. diagram, chemistry of the interstellar medium, radiophysics of the sun.

0101	Andrew Harris	Seats (Total: 30)
	W 3:30pm - 5:30pm	ATL 2400

ASTR688E **Special Topics in Modern Astronomy; Exoplanetary Astrophysics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Special topics such as extragalactic radio sources, plasma astrophysics, the H.R. diagram, chemistry of the interstellar medium, radiophysics of the sun.

Restriction: Permission of CMNS-Astronomy department. A survey of the exoplanet sub-field of astronomy. Topics presented will include exoplanet detection, formation, interiors, and atmospheres. The current state of observations and theory will be explored. Connections will be made to the fields of planetary science and stellar astrophysics.

0101	Eliza Kempton	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	ATL 0201

ASTR699 **Special Problems in Advanced Astronomy**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ASTR799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ASTR898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Sat-Fail

Contact department for information to register for this course.

ASTR899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BCHM Biochemistry Spring 2022

The College of Computer, Mathematical and Natural Sciences enforces course prerequisites. Students who do not meet the course prerequisites will be administratively dropped from the course. Registration in course sections which begin with "SES" is restricted to students admitted into the Science in the Evening Program, administered through the Office of Extended Studies. For complete information, visit: http://oes.umd.edu/index.php?slab=sie , e-mail oes@umd.edu, or call 301-405-7762.*

BCHM461 **Biochemistry I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHEM271 and CHEM272; or minimum grade of C- in CHEM276 and CHEM277. Credit only granted for: BCHM461 or BCHM463.

First semester of a comprehensive introduction to modern biochemistry. Structure, chemical properties, and function of proteins and enzymes, carbohydrates, lipids, and nucleic acids. Basic enzyme kinetics and catalytic mechanisms.

0101	Jinwoo Lee TuTh 9:30am - 10:45am	Seats (Total: 115) CHM 1407
0102	Douglas Julin TuTh 12:30pm - 1:45pm	Seats (Total: 115) CHM 1402

BCHM462 **Biochemistry II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BCHM461. Credit only granted for: BCHM462 or BCHM463.

A continuation of BCHM 461. Metabolic pathways and metabolic regulation, energy transduction in biological systems, enzyme catalytic mechanisms.

0101	Myles Poulin TuTh 2:00pm - 3:15pm	Seats (Total: 75) CHM 1402
0102	Douglas Julin MWF 1:00pm - 1:50pm	Seats (Total: 75) CHM 1402

BCHM463 **Biochemistry of Physiology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHEM271 and CHEM272; or minimum grade of C- in CHEM276 and CHEM277. Credit only granted for: BCHM461, BCHM462 or BCHM463.

A one-semester introduction to general biochemistry. A study of protein structure, enzyme catalysis, metabolism, and metabolic regulation with respect to their relationship to physiology.

0101	Bonnie Dixon MWF 2:00pm - 2:50pm	Seats (Total: 130) CHM 1402
0201	Heather Tienson-Tseng TuTh 2:00pm - 3:15pm	Seats (Total: 130) BPS 1250

0301	Heather Tienson-Tseng MWF 8:00am - 8:50am	Seats (Total: 85) CHM 1402
SES1	Bonnie Dixon M 6:30pm - 9:30pm	Seats (Total: 30) CHM 1224
	Must be in the Science in the Evening (SIE) Program. Click here for more information.	

BCHM464 **Biochemistry Laboratory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BCHM461 or BCHM463; and a grade of C- or better in the prerequisite is required for all College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: BCHM465. Restriction: BCHM, CHEM, and Nutritional Sciences majors have first priority, followed by other life science majors.

Biochemical and genetic methods for studying protein function. Site-directed mutagenesis and molecular cloning, protein purification, enzyme activity assays, computer modeling of protein structure.

Students must pay a $40.00 lab materials fee.

0101	Christopher Capp Th 11:00am - 11:50am M 1:00pm - 5:50pm	Seats (Total: 18) CHM 1402 ESJ 0316	 Lab
0102	Christopher Capp Th 11:00am - 11:50am Tu 12:30pm - 5:20pm	Seats (Total: 18) CHM 1402 ESJ 0316	 Lab
0103	Christopher Capp Th 11:00am - 11:50am W 1:00pm - 5:50pm	Seats (Total: 18) CHM 1402 ESJ 0316	 Lab

BCHM465 **Biochemistry III**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: CS

Prerequisite: BCHM461 or BCHM463; and a grade of C- or better in the prerequisite is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Recommended: BCHM462.

CORE Capstone (CS) Course. An advanced course in biochemistry. Biochemical approach to cellular information processing. DNA and RNA structure. DNA replication, transcription, and repair. Translation of mRNA to make proteins.

0101	Paul Paukstelis	Seats (Total: 80)
	MWF 12:00pm - 12:50pm	CHM 1402

BCHM485 **Physical Biochemistry**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHEM481. Restriction: Must be in Biochemistry program; or permission of instructor. Credit only granted for: CHEM482 or BCHM485.

Physical Chemistry with applications to biological systems. Principal topics: quantum chemistry, spectroscopy, structural methods for biological macromolecules, statistical thermodynamics, transport processes in liquid phase, chemical and biochemical kinetics, modeling and simulation, polymer dynamics.

0101	David Fushman	Seats (Total: 55)
	TuTh 9:30am - 10:45am	CHM 1402

BCHM669C **Special Topics in Biochemistry; Protein Folding and Disease**

Credits: 3 Grading Method: Regular, Audit

BCHM 669C applies the principles of protein biochemistry towards an understanding of the molecular basis for a range of human diseases. Therapeutic approaches, including small molecules, protein design, and immunotherapy will be discussed.

0101	John Orban	Seats (Total: 14)
	Meets January 24, 2022 - March 18, 2022	
	TuTh 2:00pm - 4:40pm	PHY 2211

BCHM669D **Special Topics in Biochemistry; Drug Discovery**

Credits: 3 Grading Method: Regular, Audit

Overview of the drug discovery process covering the identification of drug targets, assay development, high throughput compound screening, mechanism-based drug design, compound optimization, computational methods, pharmacokinetic/toxicity studies, vaccine and biologics, phage-based drug discovery, drug delivery.

0101	Osnat Herzberg **Meets March 21, 2022 - May 10, 2022** TuTh 2:00pm - 4:40pm	Seats (Total: 14) PHY 2211

BCHM675 **Biophysical Chemistry**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: CHEM481 and BCHM461; or students who have taken courses with comparable content may contact the department.

Conformation, shape, structure, conformational changes, dynamics and interactions of biological macromolecules and complexes or arrays of macromolecules. Physical techniques for studying properties of biological macromolecules.

0101	Theodore Dayie TuTh 9:30am - 10:45am	Seats (Total: 24) PHY 2124

BCHM676 **Biological Mass Spectrometry**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: BCHM461 or BCHM463. Formerly: BCHM669B.

Fundamentals of modern mass spectrometry and use with biochemical techniques to provide unique analyses of drug metabolites, lipids, carbohydrates, nucleotides and proteins. The interface with bioinformatics will be examined, which provides the foundation of proteomics.

0101	Peter Nemes TuTh 12:30pm - 1:45pm	Seats (Total: 20) PHY 2124

BCHM698 **Literature Seminar in Biochemistry**

(Perm req)

Credits: 2 Grading Method: Regular

Students will prepare and present a departmental seminar based on a topic in the current biochemical research literature.

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)

BCHM699 **Special Problems in Biochemistry**

Credits: 1-6 Grading Method: Regular, Audit

Laboratory experience in a research environment. Restricted to students in the non-thesis M.S. option.

Open only to non-thesis M.S. degree candidates.

Contact department for information to register for this course.

BCHM799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BCHM889A **Seminar; Biochemistry**

Credits: 1 Grading Method: Regular, Audit

0101	Paul Paukstelis Tu 11:00am - 12:15pm	Seats (Total: 45) IPT 1116

BCHM889B **Seminar**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)

BCHM889D **Seminar; Enzymology of Recombination**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)

BCHM889E **Seminar**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

0101	Instructor: TBA W 11:00am - 12:15pm	Seats (Total: 25) Location: TBA

BCHM889F **Seminar; Bacterial Spores**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

0101	Instructor: TBA W 11:00am - 12:15pm	Seats (Total: 25) Location: TBA

BCHM889G **Seminar; Biological Mass Spectrometry**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)

BCHM889M **Seminar; Modern Methods in NMR and Structural Biology**

Credits: 1 Grading Method: Regular, Audit

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)

BCHM898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

BCHM899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BIOE Bioengineering Spring 2022

BIOE120 **Biology for Engineers**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in MATH140. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Introduction to the functions and interactions of biological systems from a quantitative perspective. Introduction to the modern experimental techniques and methods of data analysis. Roles for bioengineers in biology, and the role of biology in bioengineering will be elucidated.

0101	Ganesh Sriram TuTh 2:00pm - 3:15pm Th 3:30pm - 4:20pm	Seats (Total: 30) ESJ 0215 ESJ 1309	Discussion
0102	Ganesh Sriram TuTh 2:00pm - 3:15pm Th 4:30pm - 5:20pm	Seats (Total: 30) ESJ 0215 ESJ 1309	Discussion
0201	Brian Blair MWF 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 30) ESJ 0215 ESJ 1309	Discussion
0202	Brian Blair MWF 2:00pm - 2:50pm F 3:00pm - 3:50pm	Seats (Total: 30) ESJ 0215 ESJ 1309	Discussion

BIOE121 **Biology for Engineers Laboratory**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in BIOE120. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Bioengineering encompasses numerous sub-disciplines that apply engineering principles to analyze biological systems and that utilize engineering design strategies to solve biological and biomedical problems. This course is aimed at providing students with the opportunity to learn how biology and engineering can synergistically contribute to our understanding of such problems, and to gain hands-on experience in basic techniques relevant to Bioengineering.

0101	Brian Blair M 11:00am - 11:50am Tu 9:00am - 11:00am	Seats (Total: 20) KEB 1110 AJC 1121	Lab
0102	Brian Blair M 11:00am - 11:50am Tu 3:30pm - 5:30pm	Seats (Total: 20) KEB 1110 AJC 1121	Lab
0103	Brian Blair M 11:00am - 11:50am Th 10:00am - 12:00pm	Seats (Total: 20) KEB 1110 AJC 1121	Lab

0104	Brian Blair M 11:00am - 11:50am Th 2:00pm - 4:00pm	Seats (Total: 20) KEB 1110 AJC 1121	 Lab

BIOE221 **Academic and Career Planning**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: BIOE120 and BIOE121. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Provides practical tools to help Bioengineering majors think critically about their goals and career paths. Guides Bioengineering students through accessing useful resources both on- and off-campus.

0101	Abby Shantzis M 4:00pm - 4:50pm	Seats (Total: 30) AJC 2119	
0201	Abby Shantzis M 4:00pm - 4:50pm	Seats (Total: 30) AJC 2134	

BIOE232 **Bioengineering Thermodynamics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS261 and PHYS260. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE232, ENES232, ENME232, or ENME320.

A quantitative introduction to thermodynamic analysis of bioengineering systems. Bioengineering encompasses a wide range of applications from nanoscale interactions (e.g. reactions between molecules), to cellular interactions (e.g. membrane electrical currents), to overall balances on organisms, all the way to large scale manufacturing. Each of these applications (and many others not mentioned) involve energy interactions which is the domain of thermodynamics. The basic laws of thermodynamics will be introduced and explained through a series of examples related to bioengineering systems.

0101	Silvina Matysiak TuTh 11:00am - 12:15pm M 1:00pm - 1:50pm	Seats (Total: 30) KEB 1200 AJC 2132	 Discussion
0102	Silvina Matysiak TuTh 11:00am - 12:15pm W 1:00pm - 1:50pm	Seats (Total: 30) KEB 1200 AJC 2132	 Discussion

BIOE241 **Biocomputational Methods**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Application of computer technology to biological and natural resource systems considering engineering aspects. Designed to help students in the use of computer technology for problem solving. The course will cover 4-5 software packages important for later use by the student.

0101	Lan Ma MWF 10:00am - 10:50am	Seats (Total: 30) KEB 2111	
0201	Lan Ma MWF 3:00pm - 3:50pm	Seats (Total: 30) KEB 2111	

BIOE331 **Biofluids**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: MATH246, BIOE120, BIOE121, BIOE241, and BIOE371; and must have completed or be concurrently enrolled in BIOE232. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE331, ENCE305, ENFP300 or ENME331.

Principles and applications of fluid mechanics with a focus on bioengineering topics. Content includes conservation of mass, momentum, and energy, as well as the application of these fundamental relations to hydrostatics, control volume analysis, internal and external flow, and boundary layers. Applications to biological and bioengineering problems such as tissue engineering, bioprocessing, imaging, and drug delivery.

0101	Alisa Clyne MWF 11:00am - 11:50am F 1:00pm - 2:50pm	Seats (Total: 30) ESJ 0215 AJC 2119	 Discussion
0102	Alisa Clyne MWF 11:00am - 11:50am F 3:00pm - 4:50pm	Seats (Total: 30) ESJ 0215 AJC 2119	 Discussion

BIOE340 **Modeling Physiological Systems and Lab**

(Perm req)

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI330, BIOE120, BIOE121, BIOE241, and MATH246. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE340 or (BSCI440 and BSCI441).

Topics covered will include cell and general physiology, membrane physiology, blood cells and clotting, circulation, metabolism, respiration, and the nervous system. A lab component will also be included.

0101	Steven Jay TuTh 11:00am - 12:15pm Th 5:00pm - 6:30pm	Seats (Total: 30) EGR 1202 KEB 2107	 Lab
0102	Steven Jay TuTh 11:00am - 12:15pm Th 5:00pm - 6:30pm	Seats (Total: 30) EGR 1202 KEB 2111	 Lab

BIOE371 **Linear Systems and Ordinary Differential Equations for Bioengineering Applications**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BIOE241; and must have completed or be concurrently enrolled in MATH246. Restriction: Permission on ENGR-Fischell Department of Bioengineering department.

This class utilizes fundamentals in linear systems, including eigenvalues and eigenvectors, as well as linear differential equations, to study various problems in bioengineering and biological systems, with a particular emphasis on feedback, stability, controllability, and control design.

0101	Jose Aranda-Espinoza TuTh 9:30am - 10:45am W 11:00am - 11:50am	Seats (Total: 30) KEB 1200 AJC 2134	 Discussion
0102	Jose Aranda-Espinoza TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 30) KEB 1200 AJC 2134	 Discussion

BIOE372 **Biostatistics for Experimental Design and Data Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BIOE120, BIOE121, and BIOE241. Recommended: MATH246. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE372 or STAT464.

This course will instruct students in the fundamentals of probability and statistics through examples in biological phenomenon, the design of bioengineering experiments, and clinical data analysis. Fundamentals covered in the course include probability distributions, hypothesis testing, power analysis, regression analysis, and correlation analysis.

0101	Brian Blair MWF 10:00am - 10:50am W 12:00pm - 12:50pm	Seats (Total: 33) KEB 1110 AJC 2134	Discussion
0102	Brian Blair MWF 10:00am - 10:50am W 1:00pm - 1:50pm	Seats (Total: 33) KEB 1110 AJC 2134	Discussion

BIOE389C **Special Projects in Bioengineering; Bioengineering Design Competitions**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Exploring a variety of projects in Bioengineering.

BIOE389 cannot be used as a technical elective towards the BIOE curriculum requirements.

0101	Steven Jay Th 7:00pm - 9:00pm	Seats (Total: 20) Location: TBA

BIOE389F **Special Projects in Bioengineering; iGEM Research Seminar**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Exploring a variety of projects in Bioengineering.

Cross-listed with BSCI338F. Credit granted for BSCI338F or BIOE389F.

0101	Edward Eisenstein, Jason Kahn Th 3:00pm - 4:50pm	Seats (Total: 30) BPS 1232

BIOE399 **Independent Study in Bioengineering**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Independent study.

Prerequisite: permission of department.

Contact department for information to register for this course.

BIOE399H **Independent Study in Bioengineering**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Independent study.

Contact department for information to register for this course.

BIOE413 **Stem Cell Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BIOE241, BIOE120, BIOE121, MATH246, and BIOE340. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Jointly offered with: BIOE613. Credit only granted for: BIOE489J, BIOE413, BIOE689J or BIOE613. Formerly: BIOE489J.

Provides an introduction to the role of stem cells in tissue growth and development, the engineering of stem cells and their environments for regenerative medicine applications, and disease modeling. Topics covered will include basic stem cell biology and mechanobiology; experimental methods for growing, differentiating, studying, and characterizing stem cells; stem cell integration into engineered microenvironments (e.g., tissue scaffolds and biomaterials, organ-on-chip devices, 3D-printed biomaterials); stem cell engineering in clinical applications and disease models; and ethical, commercialization, and regulatory issues in the field of stem cell engineering.

0101	Kimberly Stroka TuTh 11:00am - 12:15pm	Seats (Total: 30) AJC 2121
0201	Kimberly Stroka TuTh 11:00am - 12:15pm	Seats (Total: 30) ONLINE

BIOE414 **Macroscale Biomechanics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BIOE120, BIOE121, BIOE241, MATH246, and ENES102. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE414 or BIOE489Z. Formerly: BIOE489Z.

An overview of current problems in movement biomechanics. After taking this course, students will be able to 1) Describe the engineering tools needed to study human movement 2) Recognize a variety of clinical research and practice, and 3) Use the framework provided by the course to pursue their own self-teaching and research on these topics. Topics covered include muscle mechanics, joint mechanics, EMG and EEG signal applications, ultrasonography and elastography, anthropometry, human movement 3-D kinematics, inverse dynamics, forward dynamics, work, power and energy. Biomechanics tools will be used to investigate clinical problems. Students will also do research projects on related topics.

0101	Li-Qun Zhang	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	KEB 1110

BIOE437 **Computer-Aided Design in Bioengineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BIOE120, BIOE121, BIOE241, and MATH246; or permission of ENGR-Fischell Department of Bioengineering department. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE437, BIOE689V, ENME414, ENME272, or ENAE488D. Formerly: BIOE689V.

Introduction to Computer-Aided Design (CAD). Lecture topics will summarize design methodology, review best-practices in hardware development, and discuss engineering applications. The course will culminate in a student-selected project leveraging CAD.

0101	Kevin Aroom	Seats (Total: 40)
	Tu 5:00pm - 8:00pm	KEB 2111

BIOE442 **Python: Introduction to Programming and Data Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BIOE241, BIOE120, BIOE121, and MATH241; or permission of ENGR-Fischell Department of Bioengineering department. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE489A or BIOE442. Formerly: BIOE489A.

Provides an introduction to structured programming, computational methods, and data analysis techniques with the goal of building a foundation allowing students to confidently address problems in research and industry. Fundamentals of programming, algorithms, and simulation are covered from a general computer science perspective, while the applied data analysis and visualization portion makes use of the Python SciPy stack.

0101	Bahaa Ghammraoui	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	AJC 2119

BIOE447 **Clinical Experiences in Bioengineering**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BIOE221. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE489O or BIOE447. Formerly: BIOE489O.

An immersion experience in the clinical settings in which biomedical engineering strategies, technologies, and practices are applied. An emphasis will be placed on both clinical problems and engineering solutions.

0101	Catherine Kuo Tu 8:00am - 10:50am	Seats (Total: 25) ONLINE	

BIOE453 **Biomaterials**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM231, MATH246, CHEM232, BIOE120, BIOE121, and BIOE241. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE453, CHBE457, or ENMA425.

Examination of the structure and function of natural biomaterials, and cell-extracellular matrix interactions. Study physical properties of synthetic biomaterials for biomedical applications. Understanding molecular level interactions between biomolecules and biomaterials to design novel biomaterials with desirable characteristics. Application of biomaterials as implants, drug delivery systems, biosensors, engineered materials such as artificial skin and bone growth scaffolds will be covered.

0101	Tao Lowe MWF 12:00pm - 12:50pm M 11:00am - 11:50am	Seats (Total: 30) KEB 1200 AJC 2121	 Discussion
0102	Tao Lowe MWF 12:00pm - 12:50pm M 1:00pm - 1:50pm	Seats (Total: 30) KEB 1200 EGR 3106	 Discussion

BIOE457 **Biomedical Electronics & Instrumentation**

(Perm req)

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BIOE120, BIOE121, BIOE241, PHYS261, MATH246, and PHYS260. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Students learn fundamental concepts of electronics, assembly of electronic components into functional circuits, and integration of functional electronic devices and circuits into a system. In the lab component, students will learn to assemble and evaluate circuits and systems.

0101	Ian White MWF 2:00pm - 2:50pm W 11:00am - 12:50pm	Seats (Total: 30) ESJ 1215 AJC 1120	 Lab
0102	Ian White MWF 2:00pm - 2:50pm W 3:00pm - 4:50pm	Seats (Total: 33) ESJ 1215 AJC 1120	 Lab

BIOE461 **Synthetic Biology and Biological Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BIOE120, BIOE121, BIOE241, and MATH246; or permission of ENGR-Fischell Department of Bioengineering department. Recommended: Completion of BSCI222 and/or BSCI330 recommended. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Students are introduce to the scientific foundation and concepts of synthetic biology and biological engineering. Current examples that apply synthetic biology to fundamental and practical challenges will be emphasized. The course will also address the societal issues of synthetic biology, and briefly examine interests to regulate research in this area.

0101	Edward Eisenstein TuTh 12:30pm - 1:45pm	Seats (Total: 60) KEB 1200

BIOE486 **Capstone Design II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: CS

Prerequisite: Must have completed BIOE485 in the immediately preceding semester. Restriction: Senior standing; and must be in Engineering: Bioengineering program; and permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE486 or ENBE486. Formerly: ENBE486.

This is the second part of the senior capstone design course. This part is independent instruction where faculty mentoring each project team works with students to order supplies, fabricate their proposed design under BIOE485, test the design, write the report and present it to their fellow seniors and board of faculty mentors. Students are taught to convert the blue print of a design to actual device and test it.

0101	Jenna Mueller	Seats (Total: 130)	
	M 5:30pm - 8:00pm	EGR 1202	
	M 4:00pm - 4:50pm	EGR 1202	Lab

BIOE489F **Special Topics in Bioengineering; CFD/FEA Applications in Bioengineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Exploring a variety of topics with Bioengineering.

Prerequisites: BIOE120, BIOE121, MATH241, BIOE241; recommended: BIOE489C.Covers Computational Fluid Dynamics (CFD) and Finite Element Analysis (FEA) as applicable to Bioengineering.

0101	Frank Modica	Seats (Total: 20)
	W 6:00pm - 9:00pm	KEB 2107

BIOE489H **Special Topics in Bioengineering; BIOE Honors Seminar**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Exploring a variety of topics with Bioengineering.

0101	Kimberly Stroka	Seats (Total: 30)
	Contact instructor or department for details.	

BIOE489Q **Special Topics in Bioengineering; Engineering Approaches to Photomedicine**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Exploring a variety of topics with Bioengineering.

Prereqs: BIOE120, BIOE121, BIOE241, and MATH246. Introduces students to the fundamentals of photophysics, photochemistry, and photobiology. Engineering of selective photosensitizers, optically active nanomedicine and alternative light sources for photodynamic therapy, photothermal therapy, and imaging will be covered. Other light-based therapies, including laser surgery, low-level light therapy,and light-activated tissue repair and regeneration, will also befeatured. The course will briefly cover radiation, magnetic, and ultrasound-based technologies to highlight other extrinsic activation mechanisms for drugdelivery and phototherapy. Students will have the opportunity to review and present research articles on these emerging phototherapies and participate in lab experiments to gain a greater awareness of current advancements and refine skills in literature review.

0101	Huang Chiao Huang MWF 3:00pm - 3:50pm	Seats (Total: 23) AJC 2134

BIOE489R **Special Topics in Bioengineering; Protein Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Exploring a variety of topics with Bioengineering.

Prerequisite: BIOE120 and BIOE232. Credit only granted for: CHBE497, BIOE489R, or ENCH648P.

0101	Amy Karlsson TuTh 5:00pm - 6:15pm	Seats (Total: 5) CHM 1224

BIOE489T **Special Topics in Bioengineering; Biopharmaceutical Process Development and Manufacturing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Exploring a variety of topics with Bioengineering.

Prerequisite: BIOE120. Credit only granted for: BIOE489T or CHBE474

0101	Deborah Goldberg MW 12:30pm - 1:45pm	Seats (Total: 5) AJC 2119

BIOE489W **Special Topics in Bioengineering; Advanced Biomaterials**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Exploring a variety of topics with Bioengineering.

Prerequisite: BIOE453 or Permission of the Fischell Department of Bioengineering. Advanced biomaterials property (viscoelasticity) and its impact on biomedical systems; interactions of proteins and cells (particularly immune and stem cells) with micro, nano, and macroscale biomaterials; and advanced applications of biomaterials for tissue engineering, regenerative medicine, stem cell therapy, drug delivery, and cancer theranostics.

0101	Xiaoming He Th 12:30pm - 3:00pm	Seats (Total: 10) AJC 2119

BIOE604 **Cellular and Physiological Transport Phenomena**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

A study of transport processes, including momentum, energy and mass transport, relevant to biosystems at various scales from physiological to cellular systems. Transport leads to sets of partial differential equations and the course revolves around approaches to solving these equations to arrive at fundamental understanding of the physics of transport in biosystems.

0101	Hubert Montas	Seats (Total: 30)	
	TuTh 9:30am - 10:45am	AJC 2121	

BIOE606 **BIOE Graduate Studies II**

(Perm req)

Credits: 1

Grading Method: Regular, Audit

Restriction: Must be in ENGR: PhD Only-Bioengineering (Doctoral) program.

Second semester continued acclimation to the bioengineering graduate program. Students gain exposure to departmental research through lab rotation and to current research in the field through seminar.

0101	Steven Jay	Seats (Total: 30)	
	F 9:00am - 9:50am	AJC 2121	
	F 10:00am - 10:50am	AJC 2121	Discussion

BIOE608 **Bioengineering Seminar Series**

(Perm req)

Credits: 1

Grading Method: Sat-Fail, Audit

A variety of topics related to Bioengineering will be presented in weekly seminars.

Restriction: Must be in one of the following programs (ENGR: PhD Only-Bioengineering (Master's); ENGR: PhD Only-Bioengineering (Doctoral)).

0101	Gregg Duncan	Seats (Total: 25)
	F 9:00am - 9:50am	AJC 2132

BIOE613 **Stem Cell Engineering**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Restriction: Permission of ENGR-Fischell Department of Bioengineering. Jointly offered with: BIOE413. Credit only granted for: BIOE489J, BIOE413, BIOE689J or BIOE613. Formerly: BIOE689J.

Provides an introduction to the role of stem cells in tissue growth and development, the engineering of stem cells and their environments for regenerative medicine applications, and disease modeling. Topics covered will include basic stem cell biology and mechanobiology; experimental methods for growing, differentiating, studying, and characterizing stem cells; stem cell integration into engineered microenvironments (e.g., tissue scaffolds and biomaterials, organ-on-chip devices, 3D-printed biomaterials); stem cell engineering in clinical applications and disease models; and ethical, commercialization, and regulatory issues in the field of stem cell engineering.

0101	Kimberly Stroka	Seats (Total: 12)
	TuTh 11:00am - 12:15pm	AJC 2121

BIOE658E **Special Topics in Bioengineering (M.Eng.); Biomedical Device Development**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Special topics in Bioengineering.

For Master of Engineering students only or with permission of department. Credit only granted for BIOE658E or BIOE689W.

BI01	Martha Wang	Seats (Total: 15)
	Class time/details on ELMs	ONLINE

BIOE658P **Special Topics in Bioengineering (M.Eng.); Physiology for Bioengineers**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Special topics in Bioengineering.

For Mastering of Engineering students only or with permission of department. Credit will only be granted for BIOE658P or BIOE689M. Bioengineering-based designs of biomaterials, biomedical devices, imaging and drug delivery agents, tissue engineering, and prosthesis (among others), offer the opportunity to improve health care. This course is aimed at providing biological knowledge to lead bioengineering designs on the basis of biocompatibility and to provide tools to assess their patho-physiological impact in biological systems.

BI01	Marwan Kublawi	Seats (Total: 15)
	Class time/details on ELMs	ONLINE

BIOE658Y **Special Topics in Bioengineering (M.Eng.); Applications of Tissue Engineering**

(Perm req)

Credits: 3 Grading Method: Regular

Special topics in Bioengineering.

Restriction: For Master of Engineering students only; or permission of department. Credit only granted for: BIOE689Y, BIOE658Y, BIOE611, or BIOE411.

BI01	Ajmeeta Sangtani	Seats (Total: 15)
	Class time/details on ELMs	ONLINE

BIOE689 **Special Topics in Bioengineering**

Credits: 1-3 Grading Method: Regular

Research Oriented Individual Instruction course.

Contact department for information to register for this course.

BIOE689A **Special Topics in Bioengineering; Engineering Approaches to Photomedicine**

(Perm req)

Credits: 3 Grading Method: Regular

Research Oriented Individual Instruction course.

Credit only granted for BIOE489Q or BIOL689A. Students are introduced to the fundamentals of photophysics, photochemistry, and photobiology. Engineering of selective photosensitizers, optically active nanomedicine and alternative light sources for photodynamic therapy, photothermal therapy, and imaging will be covered. Other light-based therapies, including laser surgery, low-level light therapy, and light-activated tissue repair and regeneration, will also be featured. The course will briefly cover radiation, magnetic, and ultrasound-based technologies to highlight other extrinsic activation mechanisms for drug delivery and phototherapy. Students will have the opportunity to review and present research articles on these emerging phototherapies and participate in lab experiments to gain a greater awareness of current advancements and refine skills in literature review.

0101	Huang Chiao Huang	Seats (Total: 10)
	MWF 3:00pm - 3:50pm	AJC 2134

BIOE689T **Special Topics in Bioengineering; Advanced Biomaterials**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Research Oriented Individual Instruction course.

Restriction: Permission of the Fischell Department of Bioengineering Advanced biomaterials property (viscoelasticity) and its impact on biomedical systems; interactions of proteins and cells (particularly immune and stem cells) with micro, nano, and macroscale biomaterials; and advanced applications of biomaterials for tissue engineering, regenerative medicine, stem cell therapy, drug delivery, and cancer theranostics.

0101	Xiaoming He	Seats (Total: 20)
	Th 12:30pm - 3:00pm	AJC 2119

BIOE799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BIOE898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

BIOE899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BIOL Biology Spring 2022

BIOL609 **Special Problems in Biology**

Credits: 1-6 Grading Method: Regular

One seminar per week for each subject selected: A-Cell Biology; B-Developmental Biology; C-Estuarine and Marine Biology; D-Genetics; E-Parasitology; F-Physiology; G-Systematics and Evolutionary Biology; I-Behavior; J-General; K-Endocrinology; L-Ecology.

Contact department for information to register for this course.

BIOL615 **Developmental Genetics**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: Must have completed courses in molecular genetics and developmental or cell biology; or permission of instructor. Credit only granted for: BIOL615 or ZOOL642. Formerly: ZOOL642.

Differential gene function and its regulation in developing systems. Genes and the analysis of developmental processes.

0101	William Jeffery	Seats (Total: 7)
	Tu 2:00pm - 4:30pm	BPS 2249

BIOL705 **Statistics & Modeling for Biologists**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in the Biological Sciences Graduate program; or permission of Biology Department. Credit only granted for: BIOL705 or BIOL709F. Formerly: BIOL709F.

An overview of essential probability and statistics using R with a focus on biological problems. Topics include: parameter estimation (likelihood, Bayesian), confidence intervals and hypothesis testing, multiple testing, experimental design and power analysis, and resampling-based measures of uncertainty. Practical use of computers will be emphasized.

0101	Philip Johnson	Seats (Total: 40)
	Tu 11:00am - 12:15pm	BPS 1238
	Th 11:00am - 12:15pm	BPS 1208

BIOL708B **Advanced Topics in Biology; Animal Behavior**

Credits: 3 Grading Method: Regular

Lectures, experimental courses and other special instructions in various zoological subjects.

0101	Gerald Borgia	Seats (Total: 1)	
	MW 1:00pm - 1:50pm	ONLINE	
	F 12:00pm - 12:50pm	PLS 1119	Discussion

BIOL708C **Advanced Topics in Biology; Evolutionary Genomics**

Credits: 3 Grading Method: Regular, Sat-Fail

Lectures, experimental courses and other special instructions in various zoological subjects.

Application of genomics to understanding evolutionary processes, including genome evolution, organismal evolution, genomic diversity across the tree of life, human evolution and disease. Relevant concepts of evolutionary genetics and genome biology will be covered.

0101	Carlos Machado	Seats (Total: 7)
	TuTh 11:00am - 12:15pm	PLS 1115

BIOL708D **Advanced Topics in Biology; Ecology and Evolution of Infectious Disease**

Credits: 3 Grading Method: Regular, Sat-Fail

Lectures, experimental courses and other special instructions in various zoological subjects.

0101	Emily Bruns	Seats (Total: 5)
	TuTh 2:00pm - 3:15pm	BPS 0283

BIOL708V **Advanced Topics in Biology; Hearing II, Translational Issues**

Credits: 3 Grading Method: Regular, Sat-Fail

Lectures, experimental courses and other special instructions in various zoological subjects.

Cross-listed with NACS728V. Credit only granted for either BIOL708V or NACS728V.

0101	Catherine Carr	Seats (Total: 20)
	Tu 4:00pm - 7:00pm	BPS 1208

BIOL709A **Selected Advanced Topics in Biology; Grant Writing**

Credits: 2 Grading Method: Regular, Audit

Lectures, experimental courses and other special instructions in various biological subjects.

Cross-listed with NACS728M. Credit granted for BIOL709A or NACS728M. Instruction in grant-writing skill, introduction to resources, discussions on how to make your grant competitive, and insight into th e review process. The goal will be to have each participant submit an NRSA.

0101	Joo Yun Jun	Seats (Total: 14)
	Th 1:00pm - 3:00pm	COL 0211

BIOL709R **Selected Advanced Topics in Biology; Membranes and Biological Interfaces**

Credits: 3 Grading Method: Regular, Audit

Lectures, experimental courses and other special instructions in various biological subjects.

0101	Sergei Sukharev	Seats (Total: 7)
	TuTh 3:30pm - 4:45pm	PLS 1111

BIOL709V **Selected Advanced Topics in Biology; Biology of Vision**

Credits: 3 Grading Method: Regular, Audit

Lectures, experimental courses and other special instructions in various biological subjects.

The physical, molecular, and neural basis of vision.

0101	Jeffrey Diamond	Seats (Total: 5)
	MW 5:00pm - 6:15pm	PLS 1111

BIOL799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BIOL898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

BIOL899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BIOM Biometrics Spring 2022

BIOM301 **Introduction to Biometrics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSAR

Prerequisite: MATH113 or MATH115. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201.

Descriptive statistics, introduction to probability, sampling, confidence interval estimation, hypothesis testing, simple regression and correlation. Emphasis on simple applications of statistical techniques and interpretation of statistical results.

0101	Christine Hakenkamp	Seats (Total: 28)	
	TuTh 12:30pm - 1:20pm	SKN 0200	
	M 9:00am - 9:50am	ANS 0473	Discussion

0102	Christine Hakenkamp TuTh 12:30pm - 1:20pm M 10:00am - 10:50am	Seats (Total: 28) SKN 0200 ANS 0473	 Discussion
0103	Christine Hakenkamp TuTh 12:30pm - 1:20pm M 11:00am - 11:50am	Seats (Total: 28) SKN 0200 ANS 0473	 Discussion
0104	Christine Hakenkamp TuTh 12:30pm - 1:20pm Tu 8:30am - 9:20am	Seats (Total: 28) SKN 0200 ANS 0473	 Discussion
0105	Christine Hakenkamp TuTh 12:30pm - 1:20pm Tu 9:30am - 10:20am	Seats (Total: 28) SKN 0200 ANS 0473	 Discussion
0106	Christine Hakenkamp TuTh 12:30pm - 1:20pm Tu 11:00am - 11:50am	Seats (Total: 28) SKN 0200 ANS 0473	 Discussion
0107	Christine Hakenkamp TuTh 12:30pm - 1:20pm M 12:00pm - 12:50pm	Seats (Total: 28) SKN 0200 ANS 0473	 Discussion
ESG1	Christine Hakenkamp MF 10:00am - 10:50am W 10:00am - 10:50am	Seats (Total: 30) BLD4 1308 BLD4 1308	 Discussion
	Registration is restricted to Biological Sciences - Shady Grove majors.		

BIOM688A **Topics in Biometrics; Consulting Experience in Biometrics**

Credits: 1-3 Grading Method: Regular, Audit

Advanced topics of current interest in various areas of biometrics. Credit assigned will depend on lecture and/or laboratory time scheduled and organization of the course.

Contact department for information to register for this course.

BIOM688E **Topics in Biometrics; Computational and Statistical Genomics**

Credits: 3 Grading Method: Regular, Audit

Advanced topics of current interest in various areas of biometrics. Credit assigned will depend on lecture and/or laboratory time scheduled and organization of the course.

0101	Jiuzhou Song	Seats (Total: 15)
	MW 4:00pm - 5:15pm	Location: TBA

BIOM698 **Special Problems in Biometrics**

Credits: 1-3 Grading Method: Regular, Audit

Individual study of a particular topic in biostatistics or biomathematics.

Contact department for information to register for this course.

BIPH Biophysics Spring 2022

BIPH698L **Biophysics Seminar; Biophysics**

Credits: 1 Grading Method: Regular, Audit

0101	Arpita Upadhyaya	Seats (Total: 20)
	M 4:00pm - 5:30pm	IPT 1116

BIPH699 **Research in Biophysics**

Credits: 2 Grading Method: Regular

Supervised research in biophysics laboratories. Rotations through several laboratories prior to a choice of laboratory for a research assistantship.

Contact department for information to register for this course.

BIPH799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BIPH898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

BIPH899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BISI Biological Sciences Spring 2022

BISI632 **Genetics I: Gene Expression**

Credits: 2 Grading Method: Regular, Audit

Restriction: Must be in the Biological Sciences Graduate Program (BISI); or permission of instructor. Credit only granted for: BISI632 or CBMG688F. Formerly: CBMG688F.

Molecular mechanisms of gene expression, with an emphasis on gene regulation in both prokaryotic and eukaryotic systems. Approximately 2/3 of the classes will be comprised of didactic lectures. The remaining portion of the course will consist of student-led experimental design sessions and a student-led proposal review panel.

0101	Jonathan Dinman, Jiqiang Ling	Seats (Total: 25)
	Meets January 24, 2022 - March 12, 2022	
	TuTh 4:00pm - 6:00pm	MCB 1123

BISI712 **Responsible Conduct of Research for Biologists**

Credits: 1 Grading Method: Regular

Credit only granted for: BISI712, BISI688B, or CBMG688B. Formerly: BISI688B and CBMG688B.

An exploration of the ethical dimensions associated with the responsible conduct of scientific research focusing on providing students with practical insights into the existing norms and expectations of working scientists.

0201	Charles Delwiche	Seats (Total: 15)
	Meets January 24, 2022 - March 12, 2022	
	M 4:00pm - 6:00pm	BRB 3101

BISI799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BISI898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Restriction: Must be in Biological Sciences (Doctoral) program.

Contact department for information to register for this course.

BISI899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BMGT Business and Management Spring 2022

BMGT099 **Internship Seminar**

(Perm req)

Credits: 0 Grading Method: Sat-Fail

Complements students' supervised work experiences. Involves exploring career options, developing professional work skills, examining the relationship between internship and academic coursework. Course may be repeated.

Contact department for information to register for this course.

BMGT110 **Introduction to the Business Value Chain**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: IE

Students are provided with an introduction to the business value chain with an emphasis on inter-organizational and intra-organizational coordination of core business processes. Emphasis is on cross-functional integration and the efficient and effective management of core processes with an emphasis on marketing, operations and supply chain management.

0101	Jeff Miller MW 12:30pm - 1:45pm	Seats (Total: 250) VMH 1212

BMGT110S **Introduction to the Business Value Chain**

Credits: 3 Grading Method: Regular CORE: IE

Restricted to College Park Scholars in Business, Society, and the Economy.

0101	Jeff Miller TuTh 3:30pm - 4:45pm	Seats (Total: 40) VMH 1415
0201	Jeff Miller TuTh 2:00pm - 3:15pm	Seats (Total: 40) VMH 1415

BMGT160 **The Intentional Self**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP, SCIS

Credit only granted for: BMGT160, BMGT198A, or BMGT198B.

As you navigate adulthood, you will constantly be making decisions that impact your personal and professional well being and success. Making these life choices with intention and a perspective of your whole self will increase your life satisfaction. In this course, you will examine who have been, who you are, and who you want to become. We will be exploring the six pillars of the whole self including purpose/character, relationships, wellness, community, prosperity, and nature and creating a vision for your future self.

Click here for more information about this course.

0101	Sarah Wolek	Seats (Total: 60)	
	TuTh 12:30pm - 1:45pm	VMH 1303	

BMGT190H **Introduction to Design and Quality**

Credits: 4 Grading Method: Regular General Education: DSSP

Restriction: Must be in the Quest program. Cross-listed with: ENES190. Credit only granted for: BMGT190 or ENES190.

QUEST students learn and apply design practices to design new products and services. Working in multidisciplinary teams, students use quality and process improvement methods to identify, analyze, and recommend solutions to real-world problems.

Restricted to QUEST program students. Cross-listed with ENES190H. Credit granted for ENES190H or BMGT190H.

0101	Pamela Armstrong	Seats (Total: 45)	
	Meets January 24, 2022 - May 20, 2022		
	TuTh 12:30pm - 1:45pm	ESJ 2212	
	Tu 6:00pm - 7:50pm	ESJ 2101	Discussion

BMGT210 **Foundations of Accounting for Non Business Majors**

Credits: 3 Grading Method: Regular

Restriction: Must not have completed BMGT221; and must not be in a major in the R.H. Smith School of Business. Credit only granted for: (BMGT220 and BMGT221) or BMGT210. Additional information: Does not apply to a Smith School degree. Students pursuing a Smith School minor who have completed both BMGT220 and BMGT221 may substitute these courses for BMGT210. Credit will not be given for both BMGT210 and the combination of BMGT220 and BMGT221.

Provides an understanding of the common statements that report a company's profitability and financial health, and are useful to all economic agents who are engaged with the firm. Students will also recognize and understand managerial accounting as a system for accumulating and modeling information to support decision-making.

Restricted to General Business Minors.

0101	Darlene Dennison MW 3:30pm - 4:45pm F 9:00am - 9:50am	Seats (Total: 30) TWS 1310 TWS 1320	 Discussion
0102	Darlene Dennison MW 3:30pm - 4:45pm F 10:00am - 10:50am	Seats (Total: 30) TWS 1310 TWS 1320	 Discussion

BMGT220 **Principles of Accounting I**

Credits: 3 Grading Method: Regular

Basic theory and techniques of contemporary financial accounting. Includes the accounting cycle and the preparation of financial statements for single owner and partnership forms of business organizations operating as service companies or merchandisers.

Restricted to students with 24 credit hours completed. Where a BMGT exam conflicts with another regularly scheduled class, the student will be provided a makeup exam.

0101	Progyan Basu MW 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 32) VMH 1212 VMH 1202	 Discussion
0102	Progyan Basu MW 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 32) VMH 1212 VMH 1311	 Discussion
0103	Progyan Basu MW 11:00am - 12:15pm F 12:00pm - 12:50pm	Seats (Total: 32) VMH 1212 VMH 1311	 Discussion
0104	Progyan Basu MW 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 32) VMH 1212 VMH 1311	 Discussion
0105	Progyan Basu MW 11:00am - 12:15pm F 2:00pm - 2:50pm	Seats (Total: 32) VMH 1212 VMH 1311	 Discussion

0201	Progyan Basu MW 2:00pm - 3:15pm F 10:00am - 10:50am	Seats (Total: 32) VMH 1212 VMH 1206	 Discussion
0202	Progyan Basu MW 2:00pm - 3:15pm F 11:00am - 11:50am	Seats (Total: 32) VMH 1212 VMH 1206	 Discussion
0203	Progyan Basu MW 2:00pm - 3:15pm F 12:00pm - 12:50pm	Seats (Total: 32) VMH 1212 VMH 1206	 Discussion
0204	Progyan Basu MW 2:00pm - 3:15pm F 1:00pm - 1:50pm	Seats (Total: 32) VMH 1212 VMH 1206	 Discussion
0205	Progyan Basu MW 2:00pm - 3:15pm F 2:00pm - 2:50pm	Seats (Total: 32) VMH 1212 VMH 1206	 Discussion

BMGT220H **Principles of Accounting I**

Credits: 3 Grading Method: Regular

Basic theory and techniques of contemporary financial accounting. Includes the accounting cycle and the preparation of financial statements for single owner and partnership forms of business organizations operating as service companies or merchandisers.

Restricted to Honors students with 24 hours completed.

0101	Samuel Handwerger MW 9:30am - 10:45am	Seats (Total: 38) VMH 1518

BMGT221 **Principles of Accounting II**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT220.

Basic theory and techniques of accounting for managerial decision making. Involves the introduction of the corporation and manufacturing operations. Includes cost-volume-profit analysis and capital budgeting. Introduces the topics of income taxation and international accounting.

Restriction: Restricted to students with 24 credit hours completed. Where a BMGT exam conflicts with another regularly scheduled class, the student will be provided a makeup exam.

0101	Michael McMillan TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 45) VMH 1524 VMH 1303	 Discussion
0102	Michael McMillan TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 45) VMH 1524 VMH 1303	 Discussion
0103	Michael McMillan TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 45) VMH 1524 VMH 1303	 Discussion
0201	Michael McMillan TuTh 2:00pm - 3:15pm F 10:00am - 10:50am	Seats (Total: 45) VMH 1524 VMH 1307	 Discussion
0202	Michael McMillan TuTh 2:00pm - 3:15pm F 11:00am - 11:50am	Seats (Total: 45) VMH 1524 VMH 1307	 Discussion
0203	Michael McMillan TuTh 2:00pm - 3:15pm F 12:00pm - 12:50pm	Seats (Total: 45) VMH 1524 VMH 1307	 Discussion
0204	Michael McMillan TuTh 2:00pm - 3:15pm F 1:00pm - 1:50pm	Seats (Total: 45) VMH 1524 VMH 1307	 Discussion
0301	Michael McMillan TuTh 3:30pm - 4:45pm F 11:00am - 11:50am	Seats (Total: 45) VMH 1524 VMH 1336	 Discussion
0302	Michael McMillan TuTh 3:30pm - 4:45pm F 12:00pm - 12:50pm	Seats (Total: 45) VMH 1524 VMH 1336	 Discussion
0303	Michael McMillan TuTh 3:30pm - 4:45pm F 1:00pm - 1:50pm	Seats (Total: 45) VMH 1524 VMH 1336	 Discussion

0304	Michael McMillan TuTh 3:30pm - 4:45pm F 10:00am - 10:50am	Seats (Total: 45) VMH 1524 VMH 1336	Discussion

BMGT230 **Business Statistics**

Credits: 3 Grading Method: Regular General Education: FSAR

Prerequisite: MATH113 or MATH115; or must have math eligibility of MATH120 or higher. Restriction: Must not have completed ENCE302, ENME392, STAT400, BMGT231, or ENEE324. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201.

Introductory course in probabilistic and statistical concepts including descriptive statistics, set-theoretic development of probability, the properties of discrete and continuous random variables, sampling theory, estimation, hypothesis testing, regression and decision theory and the application of these concepts to problem solving in business and management.

Where a BMGT exam conflicts with a regularly scheduled class, the student will be provided with a makeup exam.

0101	Erich Studer-Ellis MW 9:30am - 10:45am F 9:00am - 9:50am	Seats (Total: 35) VMH 1524 VMH 1411	Discussion
0102	Erich Studer-Ellis MW 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 35) VMH 1524 VMH 1411	Discussion
0103	Erich Studer-Ellis MW 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 24) VMH 1524 VMH 1411	Discussion
0104	Erich Studer-Ellis MW 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 35) VMH 1524 VMH 1411	Discussion
0105	Erich Studer-Ellis MW 9:30am - 10:45am F 1:00pm - 1:50pm	Seats (Total: 29) VMH 1524 VMH 1411	Discussion
0106	Erich Studer-Ellis MW 9:30am - 10:45am F 2:00pm - 2:50pm	Seats (Total: 35) VMH 1524 VMH 1411	Discussion

0201	Erich Studer-Ellis MW 11:00am - 12:15pm F 9:00am - 9:50am	Seats (Total: 35) VMH 1524 VMH 1314	 Discussion
0202	Erich Studer-Ellis MW 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 26) VMH 1524 VMH 1314	 Discussion
0203	Erich Studer-Ellis MW 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 35) VMH 1524 VMH 1314	 Discussion
0204	Erich Studer-Ellis MW 11:00am - 12:15pm F 12:00pm - 12:50pm	Seats (Total: 24) VMH 1524 VMH 1314	 Discussion
0205	Erich Studer-Ellis MW 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 35) VMH 1524 VMH 1314	 Discussion
0206	Erich Studer-Ellis MW 11:00am - 12:15pm F 2:00pm - 2:50pm	Seats (Total: 21) VMH 1524 VMH 1314	 Discussion
0301	Erich Studer-Ellis MW 12:30pm - 1:45pm F 9:00am - 9:50am	Seats (Total: 35) VMH 1524 VMH 1418	 Discussion
0302	Erich Studer-Ellis MW 12:30pm - 1:45pm F 10:00am - 10:50am	Seats (Total: 35) VMH 1524 VMH 1418	 Discussion
0303	Erich Studer-Ellis MW 12:30pm - 1:45pm F 11:00am - 11:50am	Seats (Total: 27) VMH 1524 VMH 1418	 Discussion
0304	Erich Studer-Ellis MW 12:30pm - 1:45pm F 12:00pm - 12:50pm	Seats (Total: 26) VMH 1524 VMH 1418	 Discussion

0305	Erich Studer-Ellis MW 12:30pm - 1:45pm F 1:00pm - 1:50pm	Seats (Total: 26) VMH 1524 VMH 1418	 Discussion
0306	Erich Studer-Ellis MW 12:30pm - 1:45pm F 2:00pm - 2:50pm	Seats (Total: 35) VMH 1524 VMH 1418	 Discussion

BMGT230B **Business Statistics**

Credits: 3 Grading Method: Regular General Education: FSAR

Prerequisite: MATH113 or MATH115; or must have math eligibility of MATH120 or higher. Restriction: Must not have completed ENCE302, ENME392, STAT400, BMGT231, or ENEE324. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201.

Introductory course in probabilistic and statistical concepts including descriptive statistics, set-theoretic development of probability, the properties of discrete and continuous random variables, sampling theory, estimation, hypothesis testing, regression and decision theory and the application of these concepts to problem solving in business and management.

Restricted to BMGT majors. Where a BMGT exam conflicts with a regularly scheduled class, the student will be provided a makeup exam.

0103	Erich Studer-Ellis MW 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 11) VMH 1524 VMH 1411	 Discussion
0105	Erich Studer-Ellis MW 9:30am - 10:45am F 1:00pm - 1:50pm	Seats (Total: 6) VMH 1524 VMH 1411	 Discussion
0202	Erich Studer-Ellis MW 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 9) VMH 1524 VMH 1314	 Discussion
0204	Erich Studer-Ellis MW 11:00am - 12:15pm F 12:00pm - 12:50pm	Seats (Total: 11) VMH 1524 VMH 1314	 Discussion
0206	Erich Studer-Ellis MW 11:00am - 12:15pm F 2:00pm - 2:50pm	Seats (Total: 14) VMH 1524 VMH 1314	 Discussion

0303	Erich Studer-Ellis MW 12:30pm - 1:45pm F 11:00am - 11:50am	Seats (Total: 8) VMH 1524 VMH 1418	Discussion
0304	Erich Studer-Ellis MW 12:30pm - 1:45pm F 12:00pm - 12:50pm	Seats (Total: 9) VMH 1524 VMH 1418	Discussion
0305	Erich Studer-Ellis MW 12:30pm - 1:45pm F 1:00pm - 1:50pm	Seats (Total: 9) VMH 1524 VMH 1418	Discussion

BMGT289A **Social Enterprise: Changing the World through Innovation and Transformative Action**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSSP, SCIS

In this course, students will hear from real-life social entrepreneurs, explore current day social issues of sustainability, climate change, leadership, disruptive innovations, and create or blueprint business plans to generate positive social change. This class will focus on innovative thinking skills, personal narratives, and social interaction strategies and plans.

0101	Gerald Suarez W 2:00pm - 4:40pm	Seats (Total: 65) ESJ 2212
0201	Gerald Suarez M 2:00pm - 4:40pm	Seats (Total: 65) ESJ 2212

BMGT289B **How Do Innovators Think?**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP, SCIS

In this course, students will learn about: a) the innovation process and the role of the individual in generating innovations and b) the attributes, habits, and skills of individuals who have successfully started innovative new businesses or significantly added value to an existing company.

This class will have an additional 5 meetings on Monday evenings from 5-7pm.

0101	Clarence Wesley W 2:00pm - 3:50pm Class time/details on ELMs	Seats (Total: 65) CCC 1205 ONLINE

0201	Clarence Wesley W 4:00pm - 5:50pm Class time/details on ELMs	Seats (Total: 65) CCC 1205 ONLINE

BMGT289D **Frauds, Scams, and Thefts: What, How and Why?**

Credits: 3 Grading Method: Regular General Education: DSSP, SCIS

The primary objective of this course is for students to gain a conceptual understanding of how fraud occurs, how it can be prevented, and how fraud can be detected through practical application of skills and tools. This course provides general background relating to fraud (e.g. history, prevalence, psychology), and it delves into the myriad types of fraud, scams and theft. This course also examines the trends in fraud detection and investigation; and introduces and explores with students the constant tension between public order and civil liberties in white collar crime, forensics, and hacking.

0101	Samuel Handwerger MW 3:30pm - 4:45pm	Seats (Total: 65) SQH 1120
0201	Samuel Handwerger MW 5:00pm - 6:15pm	Seats (Total: 65) SQH 1120

BMGT289E **Entrepreneurial Thinking for Non-Business Majors: How Not to Miss Great Opportunities Your Life Throws at You**

Credits: 3 Grading Method: Regular CORE: IE General Education: DSSP, SCIS

In this course, students learn how to analyze the world around them and then notice and define new trends, emerging problems, impending gaps, and how to turn these into exciting opportunities by providing creative solutions. Students will have a chance to not only sharpen their critical thinking skills, but also learn how to take initiative, develop a working solution, identify and resolve conflicts, and be confident and persistent, yet flexible enough to respond to changes. Student teams identify a compelling problem in present day life and then propose a creative solution taking into account possible difficulties in implementation. In addition, students will also be given problems on a much smaller scale and asked to create and present a workable solution. Students will be exposed to how a visionary's mind works and the creative solution process. In addition, students will also learn how entrepreneurial thinking can improve their day-to-day life.

0101	Oliver Schlake MW 3:30pm - 4:45pm	Seats (Total: 65) ESJ 1215

BMGT289I **Why Good Managers Make Bad Decisions**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: MS | General Education: DSSP, SCIS

This course provides an overview of the concepts, approaches, and vocabulary of evidence-based management (EBM) and provides an understanding of how experts in many disciplines can employ evidenced based decision making. EBM is an emerging movement in business to explicitly use the current best information in management decision making with special emphasis on relevant scientific findings and unbiased organizational facts. The course stresses how individuals practicing EBM learn how to rethink their approaches to data and knowledge in order to make more effective decisions.

0101	Jeff Miller	Seats (Total: 240)
	MW 3:30pm - 4:45pm	ESJ 0224

BMGT298A **Special Topics in Business and Management; Sports and Entertainment Industry Management**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Introductory special topics in business and management.

Restricted to BMGT majors.

0101	K J Hughes	Seats (Total: 48)
	Meets January 24, 2022 - May 11, 2022	
	Th 3:30pm - 6:15pm	VMH 1207

BMGT298D **Special Topics in Business and Management; Intentional Leader**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Introductory special topics in business and management.

Registered students should be in a leadership role concurrently with this class during Spring 2022. Examples include being an officer for a club, external employment, etc. For additional information please see www.intentionallifelab.org.

0101	Sarah Wolek	Seats (Total: 20)
	Th 11:00am - 12:15pm	SQH 1117
	Class time/details on ELMs	ONLINE

BMGT299B **Student Initiated Special Topics; Applied Cloud Computing in Information Systems**

Credits: 1 | Grading Method: Sat-Fail

Student initiated special topics in business and management.

0101	John Bono, Louiqa Raschid Tu 4:00pm - 4:50pm	Seats (Total: 30) VMH 1314

BMGT301 **Introduction to Information Systems**

Credits: 3 Grading Method: Regular

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business. Additional information: CMSC majors will not receive credit for this course towards their upper level concentration in their CMSC major. All BMGT majors, including students who are a double major in CMSC, must complete BMGT301 for their BMGT degree.

Comprehensive overview of information systems (IS), which explores the strategic and tactical nature of IS. The basic concepts in analyzing and designing information systems for business applications will be presented. Aspects of data management such as databases, data warehousing, data analysis, and data mining will be analyzed, and the basics of web page and web site design will be outlined. Students will also be introduced to modern information systems infrastructure such as telecommunications, networks, and information systems security. Knowledge of Excel or a similar spreadsheet tool.

Sections 0101-0501 Restricted to Information Systmes majors with 45 credit hours and other BMGT majors with 53 credit hours.

0101	Lawrence Aikins TuTh 11:00am - 12:15pm	Seats (Total: 65) VMH 1505
0201	Zeinab Karake TuTh 3:30pm - 4:45pm	Seats (Total: 65) VMH 1505
0301	Zeinab Karake TuTh 12:30pm - 1:45pm	Seats (Total: 65) VMH 1505
0401	Lawrence Aikins TuTh 9:30am - 10:45am	Seats (Total: 65) VMH 1505
0501	Zeinab Karake MW 11:00am - 12:15pm	Seats (Total: 65) VMH 1505
SG91	Paul Shapiro TuTh 2:00pm - 3:15pm *Restricted to Junior BMGT-Shady Grove students majoring in Accounting and Marketing. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 60) BLD2 2062

SG92	Paul Shapiro	Seats (Total: 60)
	TuTh 3:30pm - 4:45pm	BLD2 2062
	Restricted to Junior BMGT-Shady Grove students majoring in Management. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT301F **Introduction to Information Systems**

Credits: 3 Grading Method: Regular

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business. Additional information: CMSC majors will not receive credit for this course towards their upper level concentration in their CMSC major. All BMGT majors, including students who are a double major in CMSC, must complete BMGT301 for their BMGT degree.

Comprehensive overview of information systems (IS), which explores the strategic and tactical nature of IS. The basic concepts in analyzing and designing information systems for business applications will be presented. Aspects of data management such as databases, data warehousing, data analysis, and data mining will be analyzed, and the basics of web page and web site design will be outlined. Students will also be introduced to modern information systems infrastructure such as telecommunications, networks, and information systems security. Knowledge of Excel or a similar spreadsheet tool.

Restricted to second year students in the Smith School's Smith Start Program (FPFF).

FP01	Zeinab Karake	Seats (Total: 60)
	MW 3:30pm - 4:45pm	VMH 1505
FP02	Zeinab Karake	Seats (Total: 60)
	MW 12:30pm - 1:45pm	VMH 1505

BMGT302 **Essential Programming Skills for Business Analytics**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT301; or permission of BMGT-Robert H. Smith School of Business. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business; and must not be in the Computer Science major.

The course introduces structured and object-oriented programming and its applications in business functions and analytics. Students will apply problem-solving skills to create software solutions using programming logic and data structures. The course especially emphasizes learning by doing exercises using a modern, high-level programming language and industry standard software.

Restricted to Information Systems majors with 45 credits completed and other BMGT majors and Business Analytics minors with 53 credits completed. Not open to Computer Science.

0101	Woei-Jyh Lee TuTh 9:30am - 10:45am	Seats (Total: 35) VMH 2203
0201	Woei-Jyh Lee TuTh 11:00am - 12:15pm	Seats (Total: 35) VMH 2203
0301	John Bono MW 3:30pm - 4:45pm	Seats (Total: 35) VMH 2203
0401	John Bono MW 5:00pm - 6:15pm	Seats (Total: 35) VMH 2203
0501	John Bono MW 9:30am - 10:45am	Seats (Total: 35) VMH 2203

BMGT310 **Intermediate Accounting I**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT221.

Comprehensive analysis of financial accounting topics related to financial statement preparation and external reporting.

0101	Musa Subasi MW 12:30pm - 1:45pm *Restricted to Accounting and Finance majors with 53 credit hours completed.*	Seats (Total: 35) VMH 1415
0201	Musa Subasi MW 2:00pm - 3:15pm *Restricted to Accounting and Finance majors with 53 credit hours completed.*	Seats (Total: 35) VMH 1415
0301	Musa Subasi MW 11:00am - 12:15pm	Seats (Total: 35) VMH 1314

BMGT311 **Intermediate Accounting II**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT310.

Continuation of BMGT310.

0101	Patrick McNamee TuTh 9:30am - 10:45am	Seats (Total: 40) VMH 1411
	Restricted to Accounting majors with 60 credit hours completed.	
0201	Patrick McNamee TuTh 11:00am - 12:15pm	Seats (Total: 40) VMH 1411
	Restricted to Accounting majors with 60 credit hours completed.	
SG91	Patrick McNamee MW 9:30am - 10:45am	Seats (Total: 45) BLD2 2052
	Restricted to Junior BMGT-Shady Grove students majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT313 **Financial Statement Analysis**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT221.

Provides students with the tools to conduct a financial statement analysis, which is part of an overall business analysis. Involves understanding and using the information that financial statements are communicating to users.

Restricted to Finance or Accounting majors with 53 credit hours completed.

0101	Brent Solomon MW 3:30pm - 4:45pm	Seats (Total: 45) VMH 1335

BMGT313F **Financial Statement Analysis**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT221.

Provides students with the tools to conduct a financial statement analysis, which is part of an overall business analysis. Involves understanding and using the information that financial statements are communicating to users.

Restriction: Restricted to Banking & Private Wealth Management Fellows (FPFS)

FP01	Brent Solomon MW 2:00pm - 3:15pm	Seats (Total: 35) VMH 1335

BMGT321 **Managerial Accounting**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT221.

A study of the basic concepts of product costing and cost analysis for management planning and control. Emphasis is placed on the role of the accountant in organizational management, analysis of cost behavior, standard cost budgeting, responsibility accounting and relevant costs for decision-making.

Restricted to BMGT majors with 53 credit hours completed.

0101	Martin Loeb MW 12:30pm - 1:45pm	Seats (Total: 35) VMH 1314
0201	Martin Loeb MW 3:30pm - 4:45pm	Seats (Total: 35) VMH 2511

BMGT323 **Taxation of Individuals**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT221.

Federal taxation of individuals focusing on income, exclusions, deductions, depreciation, credits and capital transactions. Property coverage includes the tax consequences of sales and dispositions of investment and business assets. Both tax planning and compliance issues are covered.

0101	Leslie Mostow TuTh 2:00pm - 3:15pm *Restricted to Accounting majors with 53 credit hours completed.*	Seats (Total: 35) VMH 1411
0201	Leslie Mostow TuTh 3:30pm - 4:45pm *Restricted to Accounting majors with 53 credit hours completed.*	Seats (Total: 35) VMH 1411
SG91	Jeffrey Milton MW 11:00am - 12:15pm *Restricted to Junior BMGT-Shady Grove students majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 45) BLD2 3012

BMGT326 **Accounting Systems**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT221; and (BMGT201 or BMGT301).

A study of accounting systems and computer and communications technology.

0101	Lei Zhou TuTh 2:00pm - 3:15pm *Restricted to Accounting majors with 60 credit hours completed.*	Seats (Total: 40) VMH 1314
0201	Lei Zhou TuTh 12:30pm - 1:45pm *Restricted to Accounting majors with 60 credit hours completed.*	Seats (Total: 40) VMH 1314
SG91	Lei Zhou MW 9:30am - 10:45am *Restricted to Senior BMGT-Shady Grove students majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 25) BLD2 3022
SG92	Lei Zhou MW 11:00am - 12:15pm *Restricted to Senior BMGT-Shady Grove students majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 25) BLD2 3022

BMGT332 Quantitative Models for Management Decisions

Credits: 3 Grading Method: Regular

Prerequisite: BMGT231 or BMGT230; or students who have taken courses with comparable content may contact the department.

The aim of this course is to introduce management science techniques for informed decision-making that can be applied in spreadsheet models to assist in the decision-analysis process. Models include Linear Programming, Transportation and Assignment problems, network flow models, Integer and non-linear programming, Simulation and Decision Trees.

Restricted to BMGT majors and Business Analytics minors with 53 credit hours completed.

0101	Kazim Ruhi TuTh 11:00am - 12:15pm	Seats (Total: 50) VMH 1528

0201	Kazim Ruhi TuTh 3:30pm - 4:45pm	Seats (Total: 50) VMH 1528
0301	Kazim Ruhi TuTh 2:00pm - 3:15pm	Seats (Total: 50) VMH 1528

BMGT340 **Business Finance**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT220; and (BMGT231 or BMGT230).

Topics include: the principles and practices involved in the organization, financing and rehabilitation of business enterprises; the various types of securities and their use in raising funds, apportioning income, risk and control; intercorporate relations; and new developments. Emphasis on solution of problems of financial policy faced by management.

Restricted to BMGT majors with 53 credit hours completed. Interested students who don't meet restrictions should review their eligiblity for BMGT340N. Meets in a blended format. Approximately half of the scheduled face-to-face course meetings will be replaced by asynchronous online activities, including video lectures, quizzes, and graded assignments.

0101	Karen Hallows MW 2:00pm - 3:15pm	Seats (Total: 71) VMH 1330
0201	Karen Hallows MW 3:30pm - 4:45pm	Seats (Total: 75) VMH 1330
0301	Karen Hallows TuTh 5:00pm - 6:15pm	Seats (Total: 75) VMH 1330
0401	Michael Padhi MW 9:30am - 10:45am	Seats (Total: 75) VMH 1330
0501	Michael Padhi MW 12:30pm - 1:45pm	Seats (Total: 75) VMH 1330
0601	Michael Padhi MW 11:00am - 12:15pm	Seats (Total: 75) VMH 1330
0701	Karen Hallows TuTh 3:30pm - 4:45pm	Seats (Total: 75) VMH 1330

BMGT340N **Business Finance**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT220; and (BMGT231 or BMGT230).

Topics include: the principles and practices involved in the organization, financing and rehabilitation of business enterprises; the various types of securities and their use in raising funds, apportioning income, risk and control; intercorporate relations; and new developments. Emphasis on solution of problems of financial policy faced by management.

Restricted to Agricultural and Resource Economics majors (0111C) with 53 credit hours completed.

0101	Karen Hallows MW 2:00pm - 3:15pm	Seats (Total: 4) VMH 1330

BMGT341 **Financial Markets**

Credits: 3 Grading Method: Regular

Prerequisite: Must have completed or be concurrently enrolled in BMGT340. Formerly: BMGT498G.

Shows the interconnectedness of the markets. The role of the Central bank and monetary policy is included in this context. Students develop an understanding of: (i) the determination of interest rates; (ii) financial instruments, markets and institutions; (iii) the impact of monetary policy on institutions; and (iv) how financial innovations create markets.

Restricted to Finance majors with 60 credits completed.

0101	Julie Pavlovsky TuTh 11:00am - 12:15pm	Seats (Total: 45) VMH 1415
0201	Julie Pavlovsky TuTh 12:30pm - 1:45pm	Seats (Total: 45) VMH 1415

BMGT341F **Financial Markets**

Credits: 3 Grading Method: Regular

Prerequisite: Must have completed or be concurrently enrolled in BMGT340. Formerly: BMGT498G.

Shows the interconnectedness of the markets. The role of the Central bank and monetary policy is included in this context. Students develop an understanding of: (i) the determination of interest rates; (ii) financial instruments, markets and institutions; (iii) the impact of monetary policy on institutions; and (iv) how financial innovations create markets.

Restricted to Sophomore Wall Street Fellows (FPAF).

FP01	Julie Pavlovsky TuTh 9:30am - 10:45am	Seats (Total: 35) VMH 1311

BMGT343 **Investments**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT340. Credit only granted for: BMGT343 or ECON435. Additional information: This course cannot be used to fulfill any requirements for majors in Economics.

An introduction to financial investments. Topics include: securities and securities markets; investment risks, returns and constraints; portfolio policies; and institutional investment policies.

Restriction: Restricted to Finance majors with 60 credit hours completed

0101	Thomas Ernst TuTh 2:00pm - 3:15pm	Seats (Total: 45) VMH 1520
0201	Thomas Ernst TuTh 12:30pm - 1:45pm	Seats (Total: 45) VMH 1520
0301	Kenneth Fuller MW 2:00pm - 3:15pm	Seats (Total: 45) VMH 1206
0401	Kenneth Fuller MW 3:30pm - 4:45pm	Seats (Total: 45) VMH 1206
0501	Thomas Ernst TuTh 9:30am - 10:45am	Seats (Total: 45) VMH 1415

BMGT345 **Foundations of Financial Management for Non Business Majors**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT210 or BMGT220. Restriction: Must not have completed BMGT340; and must not be a major in the R.H. Smith School of Business. Credit only granted for: BMGT345 or BMGT340. Additional information: Course does not apply to a Smith School degree. BMGT340 may substitute for BMGT345.

Provides students an overview of financial management. Students will understand how a business allocates financial resources in an uncertain environment to maximize shareholder value. In addition students will learn the following: how to apply accounting principles to corporate finance; how to value assets, projects, companies and investment securities; understand the relationship between risk and return and how it impacts investment and corporate decisions; how to calculate a company's cost of capital, and develop an intuitive comprehension of financial concepts and analysis.

Restricted to General Business Minors.

0101	William MacDonald MW 9:30am - 10:45am	Seats (Total: 120) VMH 1212

BMGT347 **Quantitative Financial Analysis**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT340; must have completed or be concurrently enrolled in BMGT343. Credit only granted for: BMGT347 or BMGT448G. Formerly: BMGT448G.

Introduces students to data science for financial applications using an industry-standard programming language. Students will use tools ranging from regression models to machine learning to investigate questions across a variety of areas within finance including asset management, corporate finance and FinTech. The course will illustrate how big data and data analytics can improve financial decision-making by focusing on problems facing finance professionals.

Restricted to Finance majors with 72 credit hours completed.

0101	Seokwoo Lee MW 5:00pm - 6:15pm	Seats (Total: 38) VMH 1518
0201	Seokwoo Lee MW 3:30pm - 4:45pm	Seats (Total: 38) VMH 1518

BMGT350 **Marketing Principles and Organization**

Credits: 3 Grading Method: Regular

Recommended: ECON200.

An introduction to the concepts and principles of marketing including the marketing of service and nonprofit organizations. Provides an overview of all the concepts in marketing including relationship marketing, product development, pricing, promotion, marketing research, consumer behavior, international marketing, distribution and internal marketing to employees.

Restricted to BMGT majors with 53 credit hours completed. Other interested students should review their eligibility for BMGT 350N.

0101	Idil Yaveroglu M 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 65) VMH 1412 ONLINE

0201	Idil Yaveroglu M 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 65) VMH 1412 ONLINE
0301	Henry Boyd M 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 65) VMH 1505 ONLINE
0401	Roxanne Lefkoff W 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 65) VMH 1412 ONLINE
0501	Roxanne Lefkoff W 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 65) VMH 1412 ONLINE
0601	Roxanne Lefkoff W 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 65) VMH 1412 ONLINE
0701	Idil Yaveroglu W 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 65) VMH 1505 ONLINE
0801	Marjorie Bonavia M 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 65) VMH 1412 ONLINE

BMGT350M **Marketing Principles and Organization**

Credits: 3 Grading Method: Regular

Recommended: ECON200.

An introduction to the concepts and principles of marketing including the marketing of service and nonprofit organizations. Provides an overview of all the concepts in marketing including relationship marketing, product development, pricing, promotion, marketing research, consumer behavior, international marketing, distribution and internal marketing to employees.

Restricted to General Business minors (#BU02).

0101	Katherine Boyle Tu 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 55) SQH 1117 ONLINE
0201	Katherine Boyle Tu 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 45) SQH 1119 ONLINE

BMGT350N **Marketing Principles and Organization**

Credits: 3 Grading Method: Regular

Recommended: ECON200.

An introduction to the concepts and principles of marketing including the marketing of service and nonprofit organizations. Provides an overview of all the concepts in marketing including relationship marketing, product development, pricing, promotion, marketing research, consumer behavior, international marketing, distribution and internal marketing to employees.

Restricted to Agricultural and Resource Economics (0111C) and Horticulture (0107C) majors with 53 credit hours completed.

0201	Katherine Boyle Tu 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 10) SQH 1119 ONLINE

BMGT352 **Customer-Centric Innovation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BMGT350. Credit only granted for: BMGT352 or BMGT382.

Addresses the management of new products and services with a focus on the innovation process, specifically the development and launching of new products or services: Opportunity Identification, Concept Generation, Design, Testing and Launch.

Contact department for information to register for this course.

BMGT360 **Strategic Management of Human Capital**

Credits: 3 Grading Method: Regular

Provides students with the basic knowledge needed to help organizations attract, select, develop, engage, evaluate, and retain talent. Topics covered may include strategic HRM, the role of globalization, legal issues in HRM, work analysis, HR planning, recruitment, personnel selection, performance management and appraisal, training and development, career development, compensation systems, motivating and rewarding performance, labor relations, and employee health and safety.

Restricted to students with 53 credit hours completed.

0101	Vineet Gambhir TuTh 2:00pm - 3:15pm	Seats (Total: 60) ONLINE
0201	Vineet Gambhir TuTh 3:30pm - 4:45pm	Seats (Total: 60) ONLINE
SG91	Vineet Gambhir TuTh 9:30am - 10:45am *Restricted to Senior BMGT-Shady Grove students majoring in Management. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 60) ONLINE

BMGT362 **Negotiations**

Credits: 3 Grading Method: Regular

Restriction: Must not have completed COMM425. Credit only granted for: BMGT362 or COMM425.

By using a variety of assessment tools, feedback sources, skill-building exercises, and exercise debriefings, this experiential course is designed to enhance students' negotiating self-confidence and improve students' analytical skills, interpersonal skills, creativity and persuasive abilities.

Restricted to Management majors with 53 credit hours completed.

0101	Gosia Langa Basit MW 3:30pm - 4:45pm	Seats (Total: 45) VMH 1415
0201	Gosia Langa Basit MW 12:30pm - 1:45pm	Seats (Total: 45) VMH 1307

BMGT363 **Leadership and Teamwork in Organizations**

Credits: 3 Grading Method: Regular

Provides a comprehensive understanding of fundamental leadership concepts, theories, and skills in organizations and applies to assessing and developing effective leadership practices in organizations.

0101	Gerald Suarez MW 5:00pm - 6:15pm *Restricted to Management & Entrepreneurship majors with 53 credit hours completed.*	Seats (Total: 45) VMH 1303
SG91	Gregory Marr MW 9:30am - 10:45am *Restricted to Junior BMGT-Shady Grove students majoring in Management. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 45) BLD2 3012

BMGT364 **Managing People and Organizations**

Credits: 3 Grading Method: Regular

An introduction to selected aspects of human behavior in organizations generally known as organizational behavior (OB). This course is designed to help students develop systematic and fundamental understanding of people and their behaviors in organizations, as well as useful abilities and skills required to effectively and ethically manage various individual, interpersonal, group, and organization-level processes.

Restricted to BMGT majors with 53 credit hours completed. This course requires the purchase of course materials other than standard textbooks for in class simulations. Students will be required to purchase these materials directly from the simulation publisher(s) at a cost of approximately $20(discounts applied for number of students enrolled in course). More information on purchasing these materials will be available when the course begins.

0101	Gosia Langa Basit MW 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 60) VMH 1303 ONLINE
0201	Gosia Langa Basit MW 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 60) VMH 1303 ONLINE
0301	Zhishuang Guan TuTh 12:30pm - 1:45pm	Seats (Total: 60) VMH 1212
0401	Gregory Marr MW 2:00pm - 3:15pm	Seats (Total: 60) VMH 1303
0501	Gregory Marr MW 12:30pm - 1:45pm	Seats (Total: 60) VMH 1303

0601	Rebekah Hong TuTh 9:30am - 10:45am	Seats (Total: 60) VMH 1212
0701	Nicole Coomber TuTh 11:00am - 12:15pm	Seats (Total: 60) VMH 1212
0801	Jesse Kellner W 7:00pm - 9:40pm Class time/details on ELMs	Seats (Total: 60) VMH 1303 ONLINE
0901	Michael Geppi TuTh 2:00pm - 3:15pm	Seats (Total: 60) VMH 1212

BMGT364M Managing People and Organizations

Credits: 3 Grading Method: Regular

An introduction to selected aspects of human behavior in organizations generally known as organizational behavior (OB). This course is designed to help students develop systematic and fundamental understanding of people and their behaviors in organizations, as well as useful abilities and skills required to effectively and ethically manage various individual, interpersonal, group, and organization-level processes.

Synchronous online courses activities will take place during 8 of the weeks on Thursdays between 2-3:15pm. Restricted to General Business minors.

0101	Gregory Marr Th 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 100) ONLINE ONLINE

BMGT364N Managing People and Organizations

Credits: 3 Grading Method: Regular

An introduction to selected aspects of human behavior in organizations generally known as organizational behavior (OB). This course is designed to help students develop systematic and fundamental understanding of people and their behaviors in organizations, as well as useful abilities and skills required to effectively and ethically manage various individual, interpersonal, group, and organization-level processes.

Synchronous online courses activities will take place during 8 of the weeks on Thursdays between 2-3:15pm. Restricted to Agricultural and Resource Economics (0111C) and Dietetics (1307D) majors with 53 credit hours completed. This course requires the purchase of course materials other than standard textbooks for in class simulations. Students will be required to purchase these materials directly from the simulation publisher(s) at a cost of appoximately $20(discounts applied for number of students enrolled in course). More information on purchasing these materials will be available when the course begins.

0101	Gregory Marr	Seats (Total: 20)
	Th 2:00pm - 3:15pm	ONLINE
	Class time/details on ELMs	ONLINE

BMGT365 **Entrepreneurial Finance and Private Equity**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT461 or BMGT361. Restriction: Junior standing or higher. Credit only granted for: BMGT365, ENES466, SMLP471 or HLMN471.

Studies venture capital and private equity using a combination of cases, lectures and guest speakers. Addresses how venture capitalists provide capital to start-up firms in growing industries and how private equity markets provide capital to help established medium-sized firms (often family businesses) grow and restructure. Focuses on how financial, legal, and economic issues are dealt with in the financial contracts between venture capitalists and their limited partners and between capitalists (or other private equity investors) and the firms in which they invest.

Course restricted to BMGT majors with 72 credits completed and Innovation and Entrepreneurship (#BU03) minors

0101	Maria Bustamante	Seats (Total: 45)
	Th 5:00pm - 7:40pm	VMH 1303

BMGT366 **Growth Strategies for Emerging Companies**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT461 or BMGT361. Restriction: Junior standing or higher.

Offers practical management tools that are needed to build a new venture into a significant enterprise. The competencies, strategies and structures of successful high performance businesses are studied through cases, videos and guest lecturers. Topics include leadership, internal growth strategies, merger, acquisition and franchising.

Restricted to Innovation and Entrepreneurship Minors and Management Majors.

0101	Jennifer Hsin TuTh 11:00am - 12:15pm	Seats (Total: 45) HBK 0103

BMGT367 **Career Search Strategies in Business**

Credits: 1 Grading Method: Regular

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

An overview and opportunity to practice job search skills critical to obtaining internships and full-time positions. Course will cover strategies for exploring career options, preparing job search materials, development of job search skills such as interviewing and networking. Students are encouraged to take this course in the sophomore or junior year.

Restricted to BMGT students with 45 credit hours completed.

0101	Erin Saddler, Tyrone Clifton M 5:00pm - 5:50pm	Seats (Total: 48) VMH 1335
0201	Erin Saddler, Zachary Lyons Tu 5:00pm - 5:50pm	Seats (Total: 48) VMH 1418
0301	Adam VanWagner, Erin Saddler W 5:00pm - 5:50pm	Seats (Total: 48) VMH 1212
0401	Erin Saddler, Dina Broydo Th 5:00pm - 5:50pm	Seats (Total: 48) VMH 1418
0501	Tyrone Clifton, Erin Saddler M 6:00pm - 6:50pm	Seats (Total: 48) VMH 1335
0601	Erin Saddler, Christopher Kolling Tu 5:00pm - 5:50pm	Seats (Total: 48) VMH 1303

BMGT367F **Career Search Strategies in Business**

Credits: 1 Grading Method: Regular

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

An overview and opportunity to practice job search skills critical to obtaining internships and full-time positions. Course will cover strategies for exploring career options, preparing job search materials, development of job search skills such as interviewing and networking. Students are encouraged to take this course in the sophomore or junior year.

Restricted to students in the Smith School's Smith Start Program (FPFF).

FP01	Erin Saddler, Susan Powell M 5:00pm - 5:50pm	Seats (Total: 36) VMH 1206
FP02	Erin Saddler, Laura Koepsell M 6:00pm - 6:50pm	Seats (Total: 36) VMH 1206
FP03	Rebecca Salazar, Erin Saddler Tu 5:00pm - 5:50pm	Seats (Total: 36) VMH 1335
FP04	Erin Saddler, Linda Bowers Tu 6:00pm - 6:50pm	Seats (Total: 36) VMH 1335
FP05	Erin Saddler, Agnieszka Galecka W 5:00pm - 5:50pm	Seats (Total: 36) VMH 1206
FP06	Erin Saddler, Dina Broydo W 5:00pm - 5:50pm	Seats (Total: 36) VMH 1311
FP07	Erin Saddler, Jessica Ruday W 4:00pm - 4:50pm	Seats (Total: 36) VMH 1212
FP08	Erin Saddler, Gabrielle Tharkur Th 5:00pm - 5:50pm	Seats (Total: 36) VMH 1314
FP09	Erin Saddler, Susan Powell Th 4:00pm - 4:50pm	Seats (Total: 36) VMH 1314
FP10	Erin Saddler, Dina Broydo Th 5:00pm - 5:50pm	Seats (Total: 36) VMH 1335
FP11	Erin Saddler, Dina Broydo W 6:00pm - 6:50pm	Seats (Total: 36) VMH 1206
FP12	Erin Saddler, Susan Powell M 4:00pm - 4:50pm	Seats (Total: 36) VMH 1336

BMGT369D **Experiential Learning in Business Innovation and Entrepreneurship; Ladies First Founders**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Selected experiential learning opportunities in business innovation and entrepreneurship

Intended for students who identify as female or non-binary, this course helps students build soft skills for overcoming gender biases in entrepreneurship. Students do not need to have launched a venture, as the focus of the course is on demystifying entrepreneurship. The syllabus includes a blend of skill-building workshops and networking events. Topics include the how to's of networking and mentorship, finding balance as a founder/student/human, overcoming imposter syndrome, startup pitching and body language, funding and how to get it, and more.

0101	Sara Herald	Seats (Total: 14)
	Tu 2:00pm - 3:15pm	VMH 2333D

BMGT370 Introduction to Transportation

Credits: 3 Grading Method: Regular

An overview of the transportation field with an emphasis on freight movements from the perspective of both providers of capacity and users of freight services. Examines the characteristics of the freight modes and the role of each mode as a major component of logistics and supply chain management. Explores the economics, energy use, and finances of each mode as well as the impact of government policies on each mode's future. Discussion of infrastructure and capacity needs of the transportation system and its ability to support the economy.

Restricted to BMGT students with 53 credit hours completed.

0101	Leland Gardner	Seats (Total: 40)
	MW 8:00am - 9:15am	VMH 1314
0201	Leland Gardner	Seats (Total: 40)
	MW 9:30am - 10:45am	VMH 1314

BMGT372 Introduction to Logistics and Supply Chain Management

Credits: 3 Grading Method: Regular

Supply chain management involves the coordination of suppliers, manufacturers, distributors, and retailers to ensure that products and services are available to the final consumer in a timely and cost-effective fashion. Logistics management is the subset of supply chain management dealing with the physical flows of product and includes such activities as transportation management, warehousing, materials handling, inventory management, and order fulfillment. Attention is paid to the logistics cost trade-offs within the firm and between members of the supply chain.

0101	Humberto Coronado	Seats (Total: 40)
	TuTh 9:30am - 10:45am	VMH 2505
	Restricted to BMGT majors with 53 credit hours completed.	

0201	Humberto Coronado TuTh 12:30pm - 1:45pm	Seats (Total: 40) VMH 2505
	Restricted to BMGT majors with 53 credit hours completed.	
0301	Humberto Coronado MW 2:00pm - 3:15pm	Seats (Total: 40) VMH 1411
	Restricted to BMGT majors with 53 credit hours completed.	
0401	Humberto Coronado MW 3:30pm - 4:45pm	Seats (Total: 40) VMH 1411
	Restricted to BMGT majors with 53 credit hours completed.	
SG91	Richard Hutchins MW 9:30am - 10:45am	Seats (Total: 40) BLD3 4216
	Restricted to Junior BMGT-Shady Grove cohort students majoring in Marketing. Other students may request enrollment on aspace available basis. UMCP undergraduate BMGT students are not eligibleto enroll at Shady Grove.	

BMGT374 **Supply Chain Risk Management**

Credits: 3 Grading Method: Regular

Credit only granted for: BMGT478C or BMGT374. Formerly: BMGT478C.

Since supply chain risk is increasingly more recognized as an organizational threat, and therefore a critical part of corporate strategy; this course examines a wide range of supply chain risk and develops a process to identify, assess, and prioritize this risk. Through a series of readings and case studies, the course focuses on factors that contribute to supply chain risk within the firm as well as the supply chain. Strategies to mitigate risk are explored.

Course restricted to Supply Chain Management majors.

0101	Leland Gardner MW 12:30pm - 1:45pm	Seats (Total: 50) VMH 1202

BMGT380 **Business Law I**

Credits: 3 Grading Method: Regular

Legal aspects of business relationships. Examination of torts and business crimes, contracts and agency. The law of personal property and bailment relationships. Survey of public policy issues.

Restricted to BMGT majors with 53 credit hours completed. Other interested students should review their eligibility for BMGT380N.

0101	Jennifer Gershberg MW 9:30am - 10:45am	Seats (Total: 55) VMH 1335
0201	Jennifer Gershberg MW 11:00am - 12:15pm	Seats (Total: 52) VMH 1335
0301	Justin Reyna MW 3:30pm - 4:45pm	Seats (Total: 55) VMH 1303
0401	Gideon Mark TuTh 11:00am - 12:15pm	Seats (Total: 55) VMH 1303
0501	Gideon Mark TuTh 2:00pm - 3:15pm	Seats (Total: 55) VMH 1303
0601	Gideon Mark TuTh 9:30am - 10:45am	Seats (Total: 55) VMH 1303
0701	Justin Reyna MW 12:30pm - 1:45pm	Seats (Total: 55) VMH 1335
0801	Justin Reyna MW 2:00pm - 3:15pm	Seats (Total: 55) VMH 1524
0901	Gideon Mark TuTh 3:30pm - 4:45pm	Seats (Total: 55) VMH 1212

BMGT380N **Business Law I**

Credits: 3 Grading Method: Regular

Legal aspects of business relationships. Examination of torts and business crimes, contracts and agency. The law of personal property and bailment relationships. Survey of public policy issues.

Restricted to Agricultural and Resource Economics (0111C) majors with 53 credit hours completed.

0201	Jennifer Gershberg MW 11:00am - 12:15pm	Seats (Total: 3) VMH 1335

BMGT382 **Marketing and Innovation for Entrepreneurs**

Credits: 3 Grading Method: Regular

Restriction: Must not have completed BMGT352. Credit only granted for: BMGT352 or BMGT382. Additional information: Course will not satisfy a Marketing major requirement.

Marketing and Innovation are two critically important activities that determine success in any business venture. This course will focus on understanding the fundamentals of marketing and innovation from the perspective of an entrepreneur. At a broad level, we will apply proven marketing frameworks (STP and 4Ps) to effectively deliver innovation in an entrepreneurial context.

Restricted to Innovation and Entrepreneurship minors.

0101	Mary Beth Furst TuTh 9:30am - 10:45am	Seats (Total: 40) VMH 1207

BMGT385 Operations Management

Credits: 3 Grading Method: Regular

Credit only granted for: BMGT385 or ENME426.

Studies the design, management and improvement of a firm's processes and systems for creation and delivery of products and services. Includes strategic and operational views of supply chain, product development, and capacity analysis, highlighting the competitive advantages that operations management can provide the firm.

Restricted to BMGT majors and Business Analytics minors with 53 credit hours completed.

0101	Kazim Ruhi TuTh 12:30pm - 1:45pm	Seats (Total: 50) VMH 1528
0201	Kazim Ruhi TuTh 9:30am - 10:45am	Seats (Total: 50) VMH 1528

BMGT390H Designing Innovative Systems

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES190 or BMGT190. Restriction: Must be in the QUEST program. Cross-listed with: ENES390. Credit only granted for: BMGT390 or ENES390.

QUEST students develop an understanding of complex systems that incorporate elements of business and technical design and analyze how these systems evolve over time and may be shaped by technology disruptions, internal decisions, and external forces. Students apply these concepts to real-world complex systems in a team environment.

Also offered as: ENES390H

0101	Joseph Bailey	Seats (Total: 55)
	Meets January 24, 2022 - May 22, 2022	
	TuTh 3:30pm - 4:45pm	ESJ 2212

BMGT392 **Introduction to International Business Management**

Credits: 3 Grading Method: Regular

Prerequisite: ECON200.

A study of the domestic and foreign environmental factors affecting the international operations of U.S. business firms. The course also covers the administrative aspects of international marketing, finance and management.

Contact department for information to register for this course.

BMGT397 **Mentoring Multidisciplinary Teams**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Restricted to QUEST Program (TQMP) students. Cross-listed with: ENES397. Credit only granted for: BMGT397 or ENES397.

QUEST students practice essential skills for mentoring and coaching multidisciplinary teams. These include effective communications, facilitation, conflict resolution, and the ability to motivate. Students will practice these skills as mentors for student teams from BMGT/ENES 190H. In the process, they will strengthen their knowledge of design and quality techniques.

Restricted to students in the QUEST program. Also listed as ENES397. Credit granted for BMGT397 or ENES397.

0101	Pamela Armstrong	Seats (Total: 9)
	Tu 5:00pm - 7:40pm	ESJ 2101

BMGT398 **Individual Study in Business and Management**

(Perm req)

Credits: 1-3 Grading Method: Regular

Contact department for information to register for this course.

BMGT398A **Individual Study in Business and Management; Internship**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Restricted to Smith School of Business students. Interested students should contact Erin Fields Saddler (BMGT398A@rhsmith.umd.edu) for details and permission.

0101	Erin Saddler Contact instructor or department for details.	Seats (Total: 35)	
SG91	Erin Saddler Contact instructor or department for details.	Seats (Total: 10)	

BMGT398W **Individual Study in Business and Management; Junior Wall Street Fellows**

Credits: 1 Grading Method: Regular

Restricted to Wall Street Fellows (FPWS).

0101	Julie Pavlovsky Th 2:00pm - 3:15pm	Seats (Total: 20) VMH 1518	

BMGT402 **Database Systems**

Credits: 3 Grading Method: Regular

Recommended: BMGT302. Credit only granted for: INST327 or BMGT402.

The fundamentals of database management systems (DBMS), data models, query processing, and data warehouses, and their application in the development of business information systems will be covered. An important goal of this course is to understand the value of information resources and information management challenges within an organization.

Restricted to Information Systems majors with 60+ credit hours, and BMGT and Business Analytics minors with 72+ credit hours.

0101	Woei-Jyh Lee TuTh 2:00pm - 3:15pm Th 5:00pm - 5:50pm	Seats (Total: 40) VMH 2203 VMH 2203	 Lab
0201	Yifei Wang MW 11:00am - 12:15pm Tu 5:00pm - 5:50pm	Seats (Total: 40) VMH 1311 VMH 2203	 Lab

BMGT402F **Database Systems**

Credits: 3 Grading Method: Regular

Recommended: BMGT302. Credit only granted for: INST327 or BMGT402.

The fundamentals of database management systems (DBMS), data models, query processing, and data warehouses, and their application in the development of business information systems will be covered. An important goal of this course is to understand the value of information resources and information management challenges within an organization.

Restricted to students in the Technology and Business Transformation Fellows (FPTT).

FP01	Louiqa Raschid	Seats (Total: 30)	
	TuTh 12:30pm - 1:45pm	VMH 2203	
	Th 6:00pm - 6:50pm	VMH 2203	Lab
	Tu 5:00pm - 6:00pm	VMH 1314	Lab

BMGT403 Systems Analysis and Design

Credits: 3 Grading Method: Regular

Prerequisite: BMGT301; or students who have taken courses with comparable content may contact the department. Recommended: BMGT302.

Techniques and tools applicable to the analysis and design of computer-based information systems. System life cycle, requirements analysis, logical design of databases and performance evaluation. Emphasis on case studies. Project required that involves the design, analysis and implementation of an information system.

Restricted to BMGT majors with 72 credit hours completed.

0101	Hassan Ibrahim	Seats (Total: 40)
	MW 12:30pm - 1:45pm	VMH 1311
0201	Hassan Ibrahim	Seats (Total: 40)
	MW 2:00pm - 3:15pm	VMH 1311

BMGT404 Essential Data Skills for Business Analytics

Credits: 3 Grading Method: Regular

Prerequisite: BMGT302. Credit only granted for: BMGT404 or CMSC320. Additional information: CMSC majors will not receive credit for this course towards their upper level concentration in their CMSC major.

Building on prior programming knowledge, this course introduces principles of data science to collect, analyze, and visualize business data. Students will explore application of business analytics in areas such as finance, accounting, marketing, and operations. This course especially emphasizes learning by doing exercises using a modern, high-level programming language and industry standard software.

Restricted to Information Systems majors with 60+ credit hours and BMGT & Business Anlaytics minors with 72+ credit hours.

0101	John Bono MW 12:30pm - 1:45pm	Seats (Total: 35) VMH 2203
0201	Kunpeng Zhang MW 2:00pm - 3:15pm	Seats (Total: 35) VMH 2203

BMGT407 **Information Systems Projects**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT402 and BMGT403. Restriction: Senior standing.

Senior capstone course for the decision and information sciences major. Collected knowledge from the DIS courses and application to significant problems of size and complexity. State-of-the-art research ideas and current business and industrial practices in information systems.

Restricted to Information Systems majors with 86 credit hours completed.

0101	Hassan Ibrahim MW 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 35) VMH 2203 ONLINE
0201	Hassan Ibrahim W 7:00pm - 9:40pm Class time/details on ELMs	Seats (Total: 35) VMH 2203 ONLINE
0301	Hassan Ibrahim M 7:00pm - 9:40pm Class time/details on ELMs	Seats (Total: 35) VMH 2203 ONLINE
0401	Hassan Ibrahim Tu 7:00pm - 9:40pm Class time/details on ELMs	Seats (Total: 35) VMH 2203 ONLINE

BMGT408V **Emerging Topics in Information Systems; Data Visualization and Web Analytics**

Credits: 3 Grading Method: Regular

Selected advanced topics covering emerging developments in the field of decision and information technologies.

Restricted to Information Systems majors with 60+ credits and BMGT and Business Analytics minors with 72+ credit hours. Prerequisite: BMGT301. BMGT302 recommended

0101	Lauren Rhue TuTh 11:00am - 12:15pm	Seats (Total: 35) VMH 1524
0201	Lauren Rhue TuTh 12:30pm - 1:45pm	Seats (Total: 35) VMH 1524

BMGT410 Government Accounting

Credits: 3 Grading Method: Regular

Prerequisite: BMGT221.

An introduction to the theory and practice of accounting and financial reporting as applied in both federal and state/local governments, with a focus on generally accepted accounting principles applicable in each. Topics include analyzing transactions; recognizing transactions in the accounting cycles; and preparing and analyzing financial statements and the overall financial reports at both the federal and state/local government levels.

Restricted to Accounting majors with 60 credit hours completed.

0101	Patrick McNamee TuTh 2:00pm - 3:15pm	Seats (Total: 40) VMH 1418

BMGT411 Ethics and Professionalism in Accounting

Credits: 3 Grading Method: Regular

Prerequisite: BMGT311. Restriction: Must be in Accounting program.

Analysis and discussion of issues relating to ethics and professionalism in accounting.

0101	Jeffrey Milton TuTh 9:30am - 10:45am *Restricted to Accounting majors with 86 credit hours completed.*	Seats (Total: 35) VMH 1518
0201	Mary Keim TuTh 11:00am - 12:15pm *Restricted to Accounting majors with 86 credit hours completed.*	Seats (Total: 35) VMH 1518

SG91	Mary Keim MW 9:30am - 10:45am	Seats (Total: 25) BLD2 1032
	Restricted to Senior BMGT-Shady Grove students majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	
SG92	Mary Keim MW 11:00am - 12:15pm	Seats (Total: 25) BLD2 1032
	Restricted to Senior BMGT-Shady Grove students majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT417 **Taxation of Corporations, Partnerships and Estates**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT221.

Federal taxation of corporations using the life-cycle approach-formation, operation, assessment, merger, reorganization and liquidation. Overviews of pass-through entities - partnerships and s-corporations -using the life-cycle approach, and the tax consequences of wealth transfers by individuals - gift and estate taxation. Both tax planning and compliance issues are addressed.

0101	Leslie Mostow MW 12:30pm - 1:45pm	Seats (Total: 35) VMH 1518
	Restricted to Accounting majors with 84 credit hours completed.	
SG91	Jeffrey Milton MW 12:30pm - 1:45pm	Seats (Total: 40) BLD2 3012
	Restricted to Senior BMGT-Shady Grove students majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT422 **Auditing Theory and Practice**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT310; and must have completed or be concurrently enrolled in BMGT311.

A study of the independent accountant's attest function, generally accepted auditing standards, compliance and substantive tests and report forms and opinions.

Restricted to Accounting majors.

0101	Patrick McNamee TuTh 12:30pm - 1:45pm	Seats (Total: 38) VMH 1518
0201	James McKinney MW 2:00pm - 3:15pm	Seats (Total: 38) VMH 1307

BMGT424 **Advanced Accounting**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT311.

Advanced accounting theory applied to specialized topics and current problems. Emphasis on consolidated statements and partnership accounting.

Restricted to Accounting majors.

0101	Samuel Handwerger MW 11:00am - 12:15pm	Seats (Total: 35) VMH 1518

BMGT430 **Data Modeling in Business**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT231 or BMGT230; or permission of BMGT-Robert H. Smith School of Business.

Explores the role of statistical models in business analytics to drive managerial decision-making and improve performance through the use of relevant data-motivated examples. Topics include regression models (both simple and multiple regression, as well as logistic regression for binary data), model validation, variable transformation, variable selection, discriminant analysis, and forecasting. These topics are modeled using state-of-the-art data analytics software.

Restricted to BMGT majors with 72 credit hours completed or Business Analytics minors.

0101	Radu Lazar MW 11:00am - 12:15pm	Seats (Total: 50) VMH 1206
0201	Radu Lazar MW 5:00pm - 6:15pm	Seats (Total: 50) VMH 1336

BMGT431 **Data Analytics**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT430.

An introduction to the tools and techniques that are central to the analysis of abundant data that is being collected in many forms including web traffic, social network data, and reviews and comments on websites.

Restricted to Business Analytics minors and OM & BA Majors.

0101	Radu Lazar MW 9:30am - 10:45am	Seats (Total: 45) VMH 1206
0201	Radu Lazar MW 3:30pm - 4:45pm	Seats (Total: 45) VMH 1524
0301	Margret Bjarnadottir TuTh 11:00am - 12:15pm	Seats (Total: 45) VMH 1520

BMGT434 **Analytics Consulting: Cases and Projects**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT332 and BMGT385.

This course assumes that students have already been introduced to the concepts and techniques of operations research/business analytics (OR/BA). Published papers, short cases, and projects in OR/BA will be analyzed and discussed in a thoughtful way, taking into account the soft (people-related) issues and the hard (mathematical/optimization) issues.

Restricted to Business majors, QUEST Program students, and Business Analytic minors with 72 credit hours completed.

0101	Bruce Golden MW 2:00pm - 3:15pm	Seats (Total: 35) VMH 1518
0201	Suresh Acharya M 6:30pm - 9:10pm	Seats (Total: 35) VMH 1303

BMGT435 **Business Process Simulation**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT332 and BMGT385.

Covers the methods for computer simulation modeling and analysis of complex systems. Students are assumed to have been introduced to the basic techniques and applications in the field of operations management and business analytics. Course emphasis is on modeling of real-world systems (for example, inventory or queueing systems), implementing simulations in special purpose software, and analyzing simulation results.

Restricted to BMGT majors and Business Analytics minors with 60 credit hours completed.

0101	Sujin Kim TuTh 9:30am - 10:45am	Seats (Total: 45) VMH 1520

BMGT438A **Special Topics in Operations Management; Applied Quantitative Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected advanced topics in operations management.

Restricted to QUEST students. Cross-listed with ENES498A. Credit granted for BMGT438A or ENES489A.

0101	Joseph Bailey TuTh 2:00pm - 3:15pm	Seats (Total: 55) ESJ 2212

BMGT438N **Special Topics in Operations Management; Product Management**

Credits: 3 Grading Method: Regular

Selected advanced topics in operations management.

Restricted to students in the Quest program.

0101	Pamela Armstrong TuTh 11:00am - 12:15pm	Seats (Total: 20) JMZ 3122

BMGT438T **Special Topics in Operations Management; Cross-Cultural Perspectives on Quality**

Credits: 3 Grading Method: Regular

Selected advanced topics in operations management.

0101	David Ashley M 5:00pm - 7:40pm *Restriction: Restricted to students in the QUEST program.*	Seats (Total: 20) VMH 1415
0201	David Ashley M 5:00pm - 7:40pm *Open to all students.*	Seats (Total: 20) VMH 1415

BMGT440 **Advanced Financial Management**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT340.

Analysis and discussion of cases and readings relating to financial decisions of the firm. The application of finance concepts to the solution of financial problems is emphasized.

Restricted to BMGT majors with 68 credit hours completed.

0101	David Kass TuTh 11:00am - 12:15pm	Seats (Total: 45) VMH 1335
0201	David Kass TuTh 2:00pm - 3:15pm	Seats (Total: 45) VMH 1335
0301	David Kass TuTh 3:30pm - 4:45pm	Seats (Total: 45) VMH 1335
0401	Elinda Kiss MW 11:00am - 12:15pm	Seats (Total: 45) ONLINE

BMGT440F Advanced Financial Management

Credits: 3 Grading Method: Regular

Prerequisite: BMGT340.

Analysis and discussion of cases and readings relating to financial decisions of the firm. The application of finance concepts to the solution of financial problems is emphasized.

Restricted to students in the Smith School's Emerging CFO's Fellows program.

FP01	Karen Hallows TuTh 11:00am - 12:15pm	Seats (Total: 35) VMH 1311

BMGT441 Fixed Income

Credits: 3 Grading Method: Regular

Prerequisite: BMGT340. Credit only granted for: BMGT448A or BMGT441. Formerly: BMGT448A.

Describes important financial instruments which have market values that are sensitive to interest rate movements. Develops tools to analyze interest rate sensitivity and value fixed income securities. Defines and explains the vocabulary of the bond management business.

Restricted to Finance majors with 72 credit hours completed.

0101	Aysun Alp Paukowits MW 3:30pm - 4:45pm	Seats (Total: 45) VMH 1307
0201	Aysun Alp Paukowits MW 5:00pm - 6:15pm	Seats (Total: 45) VMH 1307
0301	Aysun Alp Paukowits MW 12:30pm - 1:45pm	Seats (Total: 45) VMH 1206

BMGT442F **Advanced Portfolio Management**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT343 and BMGT347.

An in-depth coverage of statistical methods for choosing stocks is provided. Financial markets data is used in the class. Students are also expected to learn and use an industry-standard programming language during the class to implement the concepts of the class.

Restricted to Quantitative Finance Fellows (FPQF).

FP01	Seokwoo Lee TuTh 12:30pm - 1:45pm	Seats (Total: 35) VMH 3505

BMGT443 **Applied Equity Analysis and Portfolio Management**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT343.

Study and application of the concepts, methods, models, and empirical findings to the analysis, valuation and selection of securities, especially common stock.

Restricted to BMGT majors with 84 credit hours completed.

0101	Joseph Perfetti MW 8:00am - 9:15am	Seats (Total: 48) ONLINE
0201	Joseph Perfetti MW 9:30am - 10:45am	Seats (Total: 48) ONLINE
0301	Joseph Perfetti MW 11:00am - 12:15pm	Seats (Total: 48) ONLINE

0401	Joseph Perfetti MW 12:30pm - 1:45pm	Seats (Total: 48) ONLINE

BMGT444 **Futures and Options Contracts**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT343. Credit only granted for: BMGT444 or MATH424.

The institutional features and economic rationale underlying markets in futures and options. Hedging, speculation, structure of futures prices, interest rate futures, efficiency in futures markets and stock and commodity options.

Restricted to Finance (0503F) majors with 84 credit hours completed.

0101	Steven Heston TuTh 5:00pm - 6:15pm	Seats (Total: 45) VMH 1206
0201	Steven Heston TuTh 9:30am - 10:45am	Seats (Total: 42) VMH 2511
0301	Steven Heston TuTh 3:30pm - 4:45pm	Seats (Total: 45) VMH 1206

BMGT445 **Banking and Financial Institutions**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT340. Recommended: ECON330 or BMGT341.

Analysis and discussion of cases and readings in commercial bank management. The loan function is emphasized; also the management of liquidity reserves, investments for income and source of funds. Bank objectives, functions, policies, organization, structure, services and regulation are considered.

Restricted to Finance (0503F) majors with 84 credit hours completed.

0101	Michael Padhi TuTh 9:30am - 10:45am	Seats (Total: 45) VMH 1307
0201	Michael Padhi TuTh 11:00am - 12:15pm	Seats (Total: 45) VMH 1307
0301	Michael Padhi TuTh 12:30pm - 1:45pm	Seats (Total: 45) VMH 1307

BMGT446 **International Finance**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT340.

Financial management from the perspective of the multinational corporation. Topics covered include the organization and functions of foreign exchange and international capital markets, international capital budgeting, financing foreign trade and designing a global financing strategy. Emphasis of the course is on how to manage exchange and political risks while maximizing benefits from global opportunity sets faced by the firm.

0101	Albert Crosby TuTh 3:30pm - 4:45pm	Seats (Total: 46) VMH 1303
	Restricted to Finance and International Business majors with 72 credit hours completed.	
0201	Bruno Pellegrino TuTh 11:00am - 12:15pm	Seats (Total: 46) VMH 1418
	Restricted to Finance and International Business majors with 72 credit hours completed.	
0301	Bruno Pellegrino TuTh 2:00pm - 3:15pm	Seats (Total: 46) VMH 1505
	Restricted to Finance and International Business majors with 72 credit hours completed.	

BMGT448V **Special Topics in Finance; Text Mining for Economics and Finance**

Credits: 3 Grading Method: Regular

Selected advanced topics in finance.

Course Prerequisites: MATH120/140, BMGT230, and BMGT340. Restricted to Finance majors with 60 or more credits completed.

0101	Paul Soto W 6:30pm - 9:10pm	Seats (Total: 45) VMH 1336

BMGT449F **Investment Fund Management: Lemma Senbet Fund**

Credits: 3 Grading Method: Regular

The Lemma Senbet Fund is a year-long, advanced finance course available to undergraduate finance majors in their senior year. Ten to twelve students will be selected in the spring of their junior year to participate on the fund, two as portfolio managers and eight to ten as equity analysts. The course provides students with the opportunity to apply what they have learned in finance classes to actual investment decisions, through researching real companies and managing a portfolio of real money.

Restriction: Restricted to students in the Smith School's Lemma Senbet Fund Fellows program

FP01	Sarah Kroncke	Seats (Total: 12)
	TuTh 2:00pm - 3:50pm	VMH 2509

BMGT450 Integrated Marketing Communications

Credits: 3 Grading Method: Regular

Prerequisite: BMGT350. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business. Credit only granted for: BMGT354 or BMGT450. Formerly: BMGT354.

In-depth study of coordinated marketing activities including advertising, sales promotion, Internet marketing, direct marketing and personal selling. Emphasizes strategic planning to effectively use these promotional tools to communicate with customers and meet marketing goals. Blends theory and current practice to provide managerial orientation.

0101	Idil Yaveroglu	Seats (Total: 45)
	TuTh 12:30pm - 1:45pm	VMH 1206
	Restricted to BMGT majors with 60 credit hours completed.	
0201	Christine Schaaf	Seats (Total: 45)
	TuTh 2:00pm - 3:15pm	VMH 1307
	Restricted to BMGT majors with 60 credit hours completed.	

BMGT451 Consumer Analysis

Credits: 3 Grading Method: Regular

Prerequisite: BMGT350. Recommended: PSYC100; and PSYC221.

Identifying buyer behavior concepts relevant to a specific marketing problem so that appropriate marketing decisions can be made. Conceptual frameworks are drawn from psychology, sociology, economics, and other social sciences to aid in understanding the behavior of ultimate and industrial buyers.

0101	Ali Faraji-Rad	Seats (Total: 45)
	TuTh 9:30am - 10:45am	VMH 1206
	Restricted to Marketing majors with 68 credit hours completed.	
0201	Ali Faraji-Rad	Seats (Total: 45)
	TuTh 11:00am - 12:15pm	VMH 1206
	Restricted to Marketing majors with 68 credit hours completed.	

0301	Marjorie Bonavia TuTh 2:00pm - 3:15pm	Seats (Total: 45) VMH 1206
	Restricted to Marketing majors with 68 credit hours completed.	
SG91	Marjorie Bonavia TuTh 11:00am - 12:15pm	Seats (Total: 45) BLD2 2062
	Restricted to Junior BMGT-Shady Grove students majoring in Marketing. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT452 Marketing Research Methods

Credits: 3 Grading Method: Regular

Prerequisite: BMGT350 and BMGT230.

Focuses on aiding marketing decision-making through exploratory, descriptive and casual research. Develops student skills in designing market research studies, including selection of data collection method, development of data collection instrument, sample design, collection and statistical analysis of data and reporting the results.

Restricted to Marketing majors with 72 credit hours completed.

0101	Bruno Jacobs MW 3:30pm - 4:45pm	Seats (Total: 40) VMH 1311
0201	Richard Toohey MW 9:30am - 10:45am	Seats (Total: 45) VMH 1307
0301	Richard Toohey MW 11:00am - 12:15pm	Seats (Total: 45) VMH 1307
0401	Qihui Chen TuTh 3:30pm - 4:45pm	Seats (Total: 45) VMH 1307

BMGT454 Global Marketing

Credits: 3 Grading Method: Regular

Prerequisite: BMGT350.

Marketing functions from the global executive's viewpoint, including coverage of global marketing policies relating to product adaptation, data collection and analysis, channels of distribution, pricing, communications and cost analysis. Consideration is given to the cultural, legal, financial and organizational aspects of global marketing.

Restricted to BMGT majors with 72 credit hours completed.

0101	Yi Chen TuTh 3:30pm - 4:45pm	Seats (Total: 40) VMH 1311
0201	Kathleen Kelly MW 11:00am - 12:15pm	Seats (Total: 42) VMH 2511
0301	Yi Chen TuTh 5:00pm - 6:15pm	Seats (Total: 40) VMH 1311

BMGT455 **Sales Management**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT350.

The roles of the sales executive as a planner, manager of resources and marketing functions and recruiter, trainer, motivator and leader of field sales personnel. Techniques and sequence of problem analysis for selling and sales management decisions and to the practical framework in which these decisions take place. Teaching vehicles feature strong classroom interactions, cases, journal articles, research findings, guest sales managers, debates, and modern company practices.

Restricted to Senior BMGT-Shady Grove cohort students majoring in Marketing. Other students may request enrollment on a space available basis. UMCP undergraduate students are not eligible to enroll at Shady Grove.

SG91	Kathleen Kelly TuTh 11:00am - 12:15pm	Seats (Total: 40) BLD2 1032

BMGT457 **Marketing Policies and Strategies**

Credits: 3 Grading Method: Regular CORE: CS

Prerequisite: BMGT350.

This capstone course ties together various marketing concepts using the fundamentals of strategic market planning as the framework. Application of these principles is accomplished by analyzing and discussing cases and by playing a marketing strategy computer simulation game. Analysis of current business articles to understand the link between theory and real-world problem solving.

0101	Mary Beth Furst MW 11:00am - 12:15pm *Restricted to Marketing majors with 100 credit hours completed.*	Seats (Total: 38) VMH 1411
0201	Mary Harms TuTh 3:30pm - 4:45pm *Restricted to Marketing majors with 100 credit hours completed.*	Seats (Total: 38) VMH 1418
0301	Henry Boyd MW 12:30pm - 1:45pm *Restricted to Marketing majors with 100 credit hours completed.*	Seats (Total: 38) VMH 1411
0401	Mary Beth Furst MW 9:30am - 10:45am *Restricted to Marketing majors with 100 credit hours completed.*	Seats (Total: 38) VMH 1411
SG91	Katherine Boyle MW 9:30am - 10:45am *Restricted to Senior BMGT-Shady Grove students majoring in Marketing. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 35) BLD2 3052

BMGT461 **Entrepreneurship**

Credits: 3 Grading Method: Regular General Education: DSSP

Restriction: Must not have completed BMGT361. Credit only granted for: BMGT261, BMGT361, BMGT461, ENES460, SMLP470 or HLMN470.

Process of creating new ventures, including evaluating the entrepreneurial team, the opportunity and the financing requirements. Skills, concepts, mental attitudes and knowledge relevant for starting a new business.

Restricted to BMGT majors with 72 credit hours completed. Non-majors should register for BMGT461N. BMGT minors should register for BMGT461M.

0101	Maurice Boissiere W 7:00pm - 9:40pm	Seats (Total: 20) VMH 1206
0201	Le-Marie Thompson TuTh 12:30pm - 1:45pm	Seats (Total: 40) VMH 1335

BMGT461M **Entrepreneurship**

Credits: 3 Grading Method: Regular General Education: DSSP

Restriction: Must not have completed BMGT361. Credit only granted for: BMGT261, BMGT361, BMGT461, ENES460, SMLP470 or HLMN470.

Process of creating new ventures, including evaluating the entrepreneurial team, the opportunity and the financing requirements. Skills, concepts, mental attitudes and knowledge relevant for starting a new business.

Restricted to Innovation & Entrepreneurship Minors (#BU03) and also BMGT majors with 72 credit hours completed.

0101	Le-Marie Thompson	Seats (Total: 60)
	TuTh 2:00pm - 3:15pm	SQH 1120

BMGT461N **Entrepreneurship**

Credits: 3 Grading Method: Regular General Education: DSSP

Restriction: Must not have completed BMGT361. Credit only granted for: BMGT261, BMGT361, BMGT461, ENES460, SMLP470 or HLMN470.

Process of creating new ventures, including evaluating the entrepreneurial team, the opportunity and the financing requirements. Skills, concepts, mental attitudes and knowledge relevant for starting a new business.

Open to all non-BMGT majors with 72 credit hours completed. BMGT majors should register for BMGT 461. Not open to Innovation and Entrepreneurship minors.

0101	Maurice Boissiere	Seats (Total: 20)
	W 7:00pm - 9:40pm	VMH 1206

BMGT463 **Cross-cultural Challenges in Business**

Credits: 3 Grading Method: Regular

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

Examines in depth the nature of international cultural value-differences and their behavioral-related effects in the workplace. Topics include decision-making and leadership styles and reactions to various work assignments and reward structures.

Restricted to International Business, Management, & Entrepreneurship majors with 72 credit hours completed.

0101	Debra Shapiro MW 3:30pm - 4:45pm	Seats (Total: 40) VMH 1314
0201	Debra Shapiro MW 2:00pm - 3:15pm	Seats (Total: 40) VMH 1314
SG91	Jeanette Snider MW 11:00am - 12:15pm	Seats (Total: 35) BLD2 2052
	Restricted to Senior BMGT-Shady Grove students majoring in Management. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT466 **Global Business Strategy**

Credits: 3 Grading Method: Regular

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

Focuses on the strategic challenges that directly result from and are associated with the globalization of industries and companies. Topics include drivers of industry globalization, difference between global and multi-domestic industry, global expansion strategies, sources of competitive advantage in a global context, and coordination of a company across a global network.

Restricted to International Business, Management, and Entrepreneurship & Entrepreneurship majors (0503I, 0503G, 0503E) with 72 credit hours completed.

0101	Roy Thomason M 3:30pm - 6:10pm	Seats (Total: 55) VMH 1212

BMGT467 **Strategic Innovation and Entrepreneurship**

Credits: 3 Grading Method: Regular

Credit only granted for: BMGT467, ENES463 or HLMN472.

Provides an understanding of how innovation affects the competitive dynamics of markets, how firms can strategically manage innovation, and how firms can create and implement strategies to maximize their likelihood of success.

Restricted to Innovation and Entrepreneurship minors. Meets in-person every other week.

0101	Clarence Wesley TuTh 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 60) TWS 1310 ONLINE

SG91	Jainaba Ceesay W 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 45) BLD2 3032 ONLINE

Restricted to Senior BMGT-Shady Grove students majoring in Management. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.

BMGT468P **Special Topics in Management and Organization; Practicum in Global Business**

Credits: 3 Grading Method: Regular

Selected advanced topics in management and organization.

Restricted to students in the Smith School's Global Fellows Program.

FP01	Roy Thomason Tu 5:00pm - 6:15pm Class time/details on ELMs	Seats (Total: 30) ESJ 2309 ONLINE

BMGT468R **Special Topics in Management and Organization; Fearless Founders: New Venture Practicum**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Selected advanced topics in management and organization.

Restriction: Permission of BMGT-Robert H. Smith School of Business. Cross-listed with ENES498R. Credit granted for ENES498R or BMGT468R.

0101	Oliver Schlake M 5:00pm - 7:40pm Contact instructor or department for details.	Seats (Total: 25) VMH 1314

BMGT468T **Special Topics in Management and Organization; Creativity for Business Leaders and Entrepreneurs Outdoor Edition**

Credits: 3 Grading Method: Regular

Selected advanced topics in management and organization.

Restricted to students with 45 credit hours completed. Course requires participation in activities outside the scheduled meeting time, including site visits to Under Armour and in the outdoors.

0101	Oliver Schlake W 5:00pm - 6:15pm Contact instructor or department for details.	Seats (Total: 35) ESJ 1215

BMGT468U **Special Topics in Management and Organization; Fearless Founders: Social Entrepreneurship Laboratory**

Credits: 3 Grading Method: Regular

Selected advanced topics in management and organization.

Restricted to students with 45 credits earned.

0101	Andrew Bewick	Seats (Total: 30)
	W 7:00pm - 9:40pm	VMH 1411

BMGT468W **Special Topics in Management and Organization; Social Innovation Practicum: Consulting and Venture Creation**

Credits: 3 Grading Method: Regular

Selected advanced topics in management and organization.

Restricted to Social Innovation Fellows.

FP01	Tricia Homer	Seats (Total: 35)
	M 6:30pm - 9:10pm	VMH 1307

BMGT472 **Purchasing and Inbound Logistics**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT372.

Analysis of the resupply activities of logistics management, including purchasing policies, transportation planning, and inventory control. Attention is directed toward total cost minimization and the establishment of a sustainable competitive advantage based on procurement.

Restricted to Supply Chain Management majors.

0101	Philip Evers	Seats (Total: 50)
	MW 9:30am - 10:45am	VMH 1505

BMGT473 **Supply Chain Consulting Fellows II**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT370, BMGT372 and BMGT471. Credit only granted for: BMGT478D or BMGT473. Formerly: BMGT478D.

This second course of the Supply Chain Consulting Fellows program is designed to build upon the skills and concepts learned in the initial course to produce polished, skilled consultants who can build a consulting project from its initial stages and carry it through to a set of actionable initiatives and conclusive results. The initial component of this course will be to enhance and complete the started projects in the previous semester's course so that each research project can be formally presented to the project sponsor, i.e., the Board of Advisors for the Intermodal Association of North America. Student teams will serve as project consultants and tackle a real-world problem presented by a designated firm. Students will also participate in a national conference devoted to Intermodal/Logistics/Supply Chain issues. The conference will involve individual academic sessions and reports by the students based on the content provided. The class will also include several Executive Leader sessions.

Restricted to Supply Chain Management Fellows.

FP01	Thomas Corsi Tu 6:30pm - 9:20pm	Seats (Total: 35) VMH 1518

BMGT476 **Technology Applications in Supply Chain Management**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT372.

An understanding of the role of technology in managing the supply chain. Provides students with hands-on experience in advanced software systems that build on top of enterprise resource planning systems. Major emphasis is placed on demonstrating that these systems result in supply chain cost reductions and service improvements.

Restricted to Supply Chain Management and Information Systems majors.

0101	Hongyi Zhang MW 11:00am - 12:15pm	Seats (Total: 24) VMH 3522
0201	Hongyi Zhang MW 2:00pm - 3:15pm	Seats (Total: 24) VMH 3522

BMGT477 **International Supply Chain Management**

Credits: 3 Grading Method: Regular

The study of the importance of the supply chain management within a global context. Topics covered include: the structure, service, pricing and competitive relationships among international carriers and transport intermediaries as well as documentation, location decisions, international sourcing/distribution and management of inventory throughout the international supply chain.

0101	Jon Crocker, Niratcha Tungtisanont TuTh 9:30am - 10:45am *Restricted to Supply Chain Management majors and International Business majors.*	Seats (Total: 40) VMH 1314
0201	Niratcha Tungtisanont, Jon Crocker TuTh 11:00am - 12:15pm *Restricted to Supply Chain Management majors and International Business majors.*	Seats (Total: 40) VMH 1314

BMGT484 Digital Marketing

Credits: 3 Grading Method: Regular

Prerequisite: BMGT350. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

Examines the process of developing, implementing, and analyzing strategies for successfully marketing a variety of existing and potential products and services through digital means, including the web, social media, and mobile apps. Both the development and analysis of digital media for marketing will be discussed.

0101	Mary Harms TuTh 11:00am - 12:15pm *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 50) VMH 3505
0201	Mary Harms TuTh 2:00pm - 3:15pm *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 50) VMH 3505
0301	Mary Harms TuTh 9:30am - 10:45am *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 50) VMH 3505
SG91	Yi Chen TuTh 9:30am - 10:45am *Restricted to Senior BMGT-Shady Grove students majoring in Marketing. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 40) BLD4 2335

BMGT485 Project Management

Credits: 3 Grading Method: Regular

Prerequisite: BMGT231 or BMGT230; or students who have taken courses with comparable content may contact the department. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business. Credit only granted for: BMGT485, ENCE320, ENCE325, INST408O or INST453.

Modern project management techniques that are used by modern practicing professionals will be covered. Particular attention is given to the management of technology based systems and projects in a business enterprise. The topics covered include: defining project scope, alignment of projects with enterprise strategy, managing project cost, time and risks using tools such as CPM/PERT, and measuring project performance.

Restricted to Information Systems majors with 60 credit hours completed and other BMGT majors and QUEST students with 72 credit hours completed.

0101	Maria Bardossy MW 2:00pm - 3:15pm	Seats (Total: 45) VMH 1418
0201	Maria Bardossy MW 12:30pm - 1:45pm	Seats (Total: 45) VMH 1418

BMGT490H **QUEST Capstone Professional Practicum**

Credits: 4 Grading Method: Regular General Education: DSSP

Prerequisite: ENES390 or BMGT390. Cross-listed with: ENES490. Credit only granted for: BMGT490 or ENES490.

The capstone course for the QUEST Honors Program provides students with an opportunity to learn in multidisciplinary teams of business, engineering, and science students in a real-world setting. Companies engage teams of QUEST students with real organizational challenges and dedicate resources to help students address these problems. Student teams must enhance their skills in quality management, process improvement, and systems design and will apply these to add value to a client. In the process, students will improve their teamwork skills.

Restricted to QUEST program students. Cross-listed with ENES490H. Credit granted for ENES490H or BMGT490H.

0101	David Ashley, Hassan Ibrahim W 5:00pm - 7:40pm Contact instructor or department for details.	Seats (Total: 45) ESJ 2309

BMGT491 **Scoping Experiential Learning Projects**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: BMGT190 or ENES190. Restriction: Restricted to QUEST Program (TQMP) students. Cross-listed with: ENES491. Credit only granted for: BMGT491 or ENES491.

QUEST students cultivate relationships with new and current corporate partners and prepare project scopes for QUEST's introductory course, BMGT/ENES 190H, and capstone course, BMGT/ENES 490H. Requires independent work communicating with clients and class visits to a variety of potential project sites.

Restricted to QUEST program students. Cross-listed with ENES491. Credit granted for BMGT491 or ENES491.

0101	Jessica Roffe F 10:00am - 12:40pm	Seats (Total: 9) VMH 3330H

BMGT495 Strategic Management

Credits: 3 Grading Method: Regular CORE: CS General Education: DSSP

A case-based course where students learn to play the role of the "strategic manager" who defines the scope of its business operations and, within the chosen scope, how the firm will compete against rivals. This course focuses on how a firm can both formulate effective business-level and corporate-level strategies to achieve competitive advantage and earn above average profits.

0101	Roy Thomason MW 9:30am - 10:45am *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 48) VMH 1520
0201	Clarence Wesley MW 11:00am - 12:15pm *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 48) VMH 1418
0301	Paulo Prochno MW 2:00pm - 3:15pm *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 48) VMH 1528
0401	Protiti Dastidar MW 3:30pm - 4:45pm *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 48) VMH 1418
0501	Jainaba Ceesay MW 5:00pm - 6:15pm *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 48) VMH 1418

0601	Michael Geppi TuTh 9:30am - 10:45am *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 48) VMH 1418
0701	Clarence Wesley TuTh 11:00am - 12:15pm *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 48) ITV 1111
0801	Michael Geppi TuTh 12:30pm - 1:45pm *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 48) VMH 1418
0901	Donna Howell TuTh 2:00pm - 3:15pm *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 48) VMH 1336
1001	Donna Howell TuTh 3:30pm - 4:45pm *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 48) VMH 1336
SG91	Oliver Schlake MW 11:00am - 12:15pm *Restricted to Junior BMGT-Shady Grove students. Other students may request enrollment on a space available basis. UMCP undergradaute BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 50) BLD2 3052
SG92	Oliver Schlake MW 12:30pm - 1:45pm *Restricted to Junior BMGT-Shady Grove students. Other students may request enrollment on a space available basis. UMCP undergradaute BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 45) BLD2 3052

BMGT495M Strategic Management

Credits: 3 Grading Method: Regular CORE: CS General Education: DSSP

A case-based course where students learn to play the role of the "strategic manager" who defines the scope of its business operations and, within the chosen scope, how the firm will compete against rivals. This course focuses on how a firm can both formulate effective business-level and corporate-level strategies to achieve competitive advantage and earn above average profits.

Restricted to General Business minors.

0101	Protiti Dastidar	Seats (Total: 60)
	MW 2:00pm - 3:15pm	SQH 1120

BMGT614 **Strategic Management**

Credits: 2 Grading Method: Regular

Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUSI690 or BMGT614.

Analyze and identify profit opportunities and threats in different industry and competitive environments; Analyze and identify a firm's valuable assets, resources and capabilities and how they might be protected, leveraged, and extended in the market; Learn how to organize your company to be the best prepared to adapt its strategy over time as the market environment changes; and how to use organic growth as well as mergers, acquisitions, joint ventures, alliances, and divestitures to ensure that the firm maintians the proper scale and scope to compete effectively over time.

0501	Paulo Prochno	Seats (Total: 48)
	Meets March 28, 2022 - May 12, 2022	
	TuTh 2:00pm - 3:50pm	VMH 1511

BMGT758A **Special Topics in Business and Management; AI: Implications for Business Strategy**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

0501	Anil Gupta	Seats (Total: 25)
	Meets March 28, 2022 - May 12, 2022	
	TuTh 10:00am - 11:50am	VMH 1412

BMGT758B **Special Topics in Business and Management; Brand Management**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

0501	Mary Beth Furst	Seats (Total: 0)
	Meets March 28, 2022 - May 12, 2022	
	MW 2:00pm - 3:50pm	VMH 1412

BMGT758C **Special Topics in Business and Management; Consumer Behavior**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

0501	Ali Faraji-Rad	Seats (Total: 0)
	Meets January 24, 2022 - March 10, 2022	
	MW 10:00am - 11:50am	VMH 1415

BMGT758E **Special Topics in Business and Management; Business Ethics**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

0501	Rellie Rozin	Seats (Total: 48)
	Meets March 28, 2022 - May 12, 2022	
	TuTh 12:00pm - 1:50pm	VMH 1511

BMGT758F **Special Topics in Business and Management; Market Forecasting**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

0501	Wendy Moe	Seats (Total: 0)
	Meets March 28, 2022 - May 12, 2022	
	MW 12:00pm - 1:50pm	VMH 1336

BMGT758N **Special Topics in Business and Management; Negotiation and Conflict Management**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

0501	Rellie Rozin	Seats (Total: 42)
	Meets January 24, 2022 - March 10, 2022	
	TuTh 12:00pm - 1:50pm	VMH 2511

BMGT758O **Special Topics in Business and Management; Navigating Organizational Networks**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

0501	Sheetal Singh	Seats (Total: 30)
	Meets March 28, 2022 - May 12, 2022	
	MW 4:00pm - 5:50pm	VMH 1412

BMGT758Q **Special Topics in Business and Management; Business Consulting I**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

0501	Albert Krall, Nicole Coomber	Seats (Total: 0)
	Meets January 24, 2022 - March 10, 2022	
	MW 10:00am - 11:50am	VMH 1336

BMGT758R **Special Topics in Business and Management; Marketing Research Methods**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

0501	Yogesh Joshi	Seats (Total: 0)
	Meets January 24, 2022 - March 10, 2022	
	MW 2:00pm - 3:50pm	VMH 1412

BMGT758V **Special Topics in Business and Management; Valuation in Corporate Finance**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

0501	Maria Bustamante	Seats (Total: 0)
	Meets January 24, 2022 - March 10, 2022	
	MW 4:00pm - 5:50pm	VMH 1412

BMGT808D **Special Topics in Information Systems; Special Topics in Information Systems in Economics I**

Credits: 2 Grading Method: Regular, Audit

Special topics specific to the Information Systems doctoral field of study.

0101	Siva Viswanathan	Seats (Total: 12)
	Meets January 24, 2022 - March 10, 2022	
	Th 3:30pm - 7:05pm	VMH 4335

BMGT808E **Special Topics in Information Systems; Special Topics in Information Systems in Economics II**

Credits: 2 Grading Method: Regular, Audit

Special topics specific to the Information Systems doctoral field of study.

0101	Il-Horn Hann	Seats (Total: 12)
	Meets March 28, 2022 - May 10, 2022	
	Contact instructor or department for details.	

BMGT808R **Special Topics in Information Systems; Research Seminar in Decision, Operations and Information Technologies**

Credits: 1 Grading Method: Regular, Audit

Special topics specific to the Information Systems doctoral field of study.

0101	Siva Viswanathan	Seats (Total: 12)
	F 2:00pm - 3:30pm	VMH 1415

BMGT818R **Special Topics in Accounting and Information Assurance; Workshop in Accounting Research**

Credits: 1 Grading Method: Regular, Audit

Special topics specific to the Accounting and Information Assurance doctoral field of study.

0101	Michael Kimbrough	Seats (Total: 12)
	F 10:00am - 11:00am	VMH 3332

BMGT818Y **Special Topics in Accounting and Information Assurance; Management Accounting and Cyber Risk Management**

Credits: 3 Grading Method: Regular, Audit

Special topics specific to the Accounting and Information Assurance doctoral field of study.

0101	Lawrence Gordon, Martin Loeb	Seats (Total: 12)
	F 11:00am - 1:45pm	VMH 2509

BMGT828 **Independent Study in Business and Management**

Credits: 1-9 Grading Method: Regular

Contact department for information to register for this course.

BMGT838M **Special Topics in Operations Management/Management Science; Maching Learning for Casual Inference and Decision Support**

Credits: 2 Grading Method: Regular, Audit

Special topics specific to the Operations Management/Management Science doctoral field of study.

0101	Ashish Kabra, Gah-Yi Ban	Seats (Total: 12)
	Contact instructor or department for details.	

BMGT838O **Special Topics in Operations Management/Management Science; Operations Management Seminar**

Credits: 3 Grading Method: Regular, Audit

Special topics specific to the Operations Management/Management Science doctoral field of study.

0101	Wedad Elmaghraby	Seats (Total: 12)
	F 11:00am - 2:00pm	VMH 4335

BMGT838P **Special Topics in Operations Management/Management Science; Emerging Topics in Operations Management**

Credits: 3 Grading Method: Regular, Audit

Special topics specific to the Operations Management/Management Science doctoral field of study.

0101	Tunay Tunca	Seats (Total: 12)
	Contact instructor or department for details.	

BMGT838R **Special Topics in Operations Management/Management Science; Research Seminar in Decision, Operations and Information Technologies**

Credits: 1 Grading Method: Regular, Audit

Special topics specific to the Operations Management/Management Science doctoral field of study.

0101	Zhi-Long Chen	Seats (Total: 15)
	F 2:00pm - 3:30pm	VMH 1415

BMGT841 **Seminar in Corporate Finance**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Permission of BMGT-Robert H. Smith School of Business.

Seminar in selected classic and current theoretical and empirical research in corporate finance.

0101	Maria Bustamante, Richmond Mathews	Seats (Total: 12)
	W 1:00pm - 3:45pm	VMH 2330

BMGT848B **Special Topics in Finance; Special Topics in Seminar in Finance Methods II**

Credits: 2 Grading Method: Regular, Audit

Special topics specific to the Finance doctoral field of study.

0101	Xi He	Seats (Total: 12)
	Meets March 28, 2022 - May 12, 2022	
	Th 9:30am - 1:00pm	VMH 4534

BMGT848F **Special Topics in Finance; Workshop in Finance Research**

Credits: 1 Grading Method: Regular, Audit

Special topics specific to the Finance doctoral field of study.

0101	Yueyang Han, Thomas Ernst	Seats (Total: 12)
	F 10:00am - 12:00pm	VMH 1335

BMGT848T **Special Topics in Finance; Industrial Organization and Financial Economics**

Credits: 2 Grading Method: Regular, Audit

Special topics specific to the Finance doctoral field of study.

0101	Maria Bustamante M 1:00pm - 3:45pm	Seats (Total: 12) VMH 3332

BMGT858C **Special Topics in Marketing; Consumer Behavior**

Credits: 3 Grading Method: Regular, Audit

Special topics specific to the Marketing doctoral field of study.

0101	Amna Kirmani M 1:30pm - 4:10pm	Seats (Total: 12) VMH 1326

BMGT858L **Special Topics in Marketing; Marketing Strategy**

Credits: 3 Grading Method: Regular, Audit

Special topics specific to the Marketing doctoral field of study.

0101	Roland Rust W 10:00am - 1:00pm	Seats (Total: 12) VMH 1326

BMGT858R **Special Topics in Marketing; Marketing Research Seminar**

Credits: 1 Grading Method: Regular, Audit

Special topics specific to the Marketing doctoral field of study.

0101	Bruno Jacobs F 10:00am - 12:30pm	Seats (Total: 16) VMH 1415

BMGT868C **Special Topics in Organizational Behavior/Human Resource Management; Career and Professionalization Workshop in Management and Organization**

Credits: 1 Grading Method: Regular, Audit

Special topics specific to the Organizational Behavior/Human Resource Management doctoral field of study.

0101	David Waguespack F 12:30pm - 2:00pm	Seats (Total: 30) VMH 1335

BMGT868E **Special Topics in Organizational Behavior/Human Resource Management; Emotions in Organizations**

Credits: 2 Grading Method: Regular, Audit

Special topics specific to the Organizational Behavior/Human Resource Management doctoral field of study.

0101	Myeong-Gu Seo	Seats (Total: 12)
	Meets March 28, 2022 - May 12, 2022	
	Tu 2:00pm - 5:35pm	VMH 3330H

BMGT868P **Special Topics in Organizational Behavior/Human Resource Management; Organizational Behavior and Human Resource Management Presentations**

Credits: 1 Grading Method: Regular, Audit

Special topics specific to the Organizational Behavior/Human Resource Management doctoral field of study.

0101	Vijaya Venkataramani	Seats (Total: 10)
	Meets January 24, 2022 - May 10, 2022	
	W 11:00am - 12:30pm	VMH 4534

BMGT868X **Special Topics in Organizational Behavior/Human Resource Management; NDTIONS**

Credits: 2 Grading Method: Regular, Audit

Special topics specific to the Organizational Behavior/Human Resource Management doctoral field of study.

0101	Jennifer Marr	Seats (Total: 12)
	Meets January 19, 2022 - March 8, 2022	
	Tu 2:00pm - 5:35pm	VMH 3330H

BMGT878C **Special Topics in Strategic Management and Entrepreneurship; Cross Discilpinary Workshop in Strategy and Entrepreneurship**

Credits: 1 Grading Method: Regular, Audit

Special topics specific to the Strategic Management and Entrepreneurship doctoral field of study.

0101	Rachelle Sampson	Seats (Total: 12)
	Th 11:00am - 12:30pm	VMH 3330H

BMGT878J **Special Topics in Strategic Management and Entrepreneurship; Entrepreneurial Ecosystems**

Credits: 1 Grading Method: Regular, Audit

Special topics specific to the Strategic Management and Entrepreneurship doctoral field of study.

0101	Anil Gupta	Seats (Total: 12)
	Meets March 28, 2022 - May 10, 2022	
	M 2:00pm - 5:00pm	VMH 4534

BMGT878O **Special Topics in Strategic Management and Entrepreneurship; Organizational Economics**

Credits: 2 Grading Method: Regular, Audit

Special topics specific to the Strategic Management and Entrepreneurship doctoral field of study.

0101	Ryan Cooper	Seats (Total: 12)
	Meets March 28, 2022 - May 10, 2022	
	Tu 8:00am - 11:35am	VMH 3332

BMGT878P **Special Topics in Strategic Management and Entrepreneurship; Strategy and Entrepreneurship PhD Presentations**

Credits: 1 Grading Method: Regular, Audit

Special topics specific to the Strategic Management and Entrepreneurship doctoral field of study.

0101	Rajshree Agarwal	Seats (Total: 20)
	Th 9:15am - 10:45am	VMH 3330H

BMGT878Q **Special Topics in Strategic Management and Entrepreneurship; Historical Methods in Strategy Research**

Credits: 1 Grading Method: Regular, Audit

Special topics specific to the Strategic Management and Entrepreneurship doctoral field of study.

0101	Serguey Braguinsky	Seats (Total: 12)
	Meets January 24, 2022 - March 14, 2022	
	M 2:00pm - 5:30pm	VMH 2509

BMGT888E **Special Topics in Supply Chain Management; Empirical Research in Supply Chain Management**

Credits: 3 Grading Method: Regular

Special topics specific to the Supply Chain Management doctoral field of study.

0101	Thomas Corsi	Seats (Total: 12)
	W 3:00pm - 4:30pm	VMH 3332
	Class time/details on ELMs	ONLINE

BMGT888W **Special Topics in Supply Chain Management; Workshop in Supply Chain Management**

Credits: 1 Grading Method: Regular

Special topics specific to the Supply Chain Management doctoral field of study.

0101	Martin Dresner	Seats (Total: 10)
	F 2:00pm - 3:30pm	VMH 3330H

BMGT898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

BMGT899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BMSO Online Business MS Programs Spring 2022

BMSO602 **Decision Analytics**

Credits: 3 Grading Method: Regular

Prerequisite: Permission of BMGT-Robert H. Smith School of Business. Restriction: Must be in an online Business Master of Science program; or permission of BMGT-Robert H. Smith School of Business.

Difficult decisions require spending scarce resources. A 'resource' is any asset used to leverage business objectives, such as time and money. Tradeoffs are involved in allocating resources to one objective as opposed to another. This course develops a quantitative framework for studying resource allocation problems that arise in many industries and areas such as transportation, advertising, finance, and healthcare. The focus will be on translating verbal descriptions into quantitative optimization models, whereby standard tools (such as Microsoft Excel) can be applied to obtain solutions. The course also covers the role of uncertainty and risk in the decision-making process by using Monte-Carlo simulation models.

MS11	Suresh Acharya	Seats (Total: 33)
	Meets January 24, 2022 - May 12, 2022	
	W 8:45pm - 10:15pm	ONLINE
	Class time/details on ELMs	ONLINE

BMSO603 Data Mining and Predictive Analytics

Credits: 3 Grading Method: Regular

Prerequisite: Permission of BMGT-Robert H. Smith School of Business. Restriction: Must be in an online Business Master of Science program; or permission of BMGT-Robert H. Smith School of Business.

In the business press, on TV, and in board rooms, 'machine learning,' 'AI,' 'big data' and 'data analytics' are now hot topics. Vast quantities of data are being generated these days, including new types of data such as web traffic, social network data, and reviews and comments on websites. This data is a valuable resource that, when used correctly, can create a competitive edge for companies. Advances in computing hardware and algorithms have significantly improved the quality of predictions and effectiveness of business applications based on them. Expertise in working with data, and a sound knowledge of data mining/machine learning methods, is a much sought after skill. The course provides an introduction to the key tools and techniques of data mining/machine learning, including classification, prediction, cluster analysis, association rules, and text mining. The methods covered are Linear Regression, Logistic Regression, K-nearest neighbors, Naive Bayes, Classification and Regression Trees, Ensemble methods, Neural Networks, K-Means and Hierarchical Clustering, and Association Rules. The focus throughout will be on business applications. Examples from Marketing, Finance, Healthcare, and Operations will be used to illustrate the breadth of applications.

MS11	Kislaya Prasad	Seats (Total: 25)
	Meets January 24, 2022 - May 12, 2022	
	M 8:45pm - 10:15pm	ONLINE
	Class time/details on ELMs	ONLINE

BMSO758A Special Topics in Business; Social Media and Web Analytics

Credits: 3 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

MS21	Michael Trusov	Seats (Total: 25)
	Meets January 24, 2022 - March 10, 2022	
	TuTh 8:45pm - 10:15pm	ONLINE
	Class time/details on ELMs	ONLINE

BMSO758B **Special Topics in Business; Strategy Analytics**

Credits: 3 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

MS21	David Waguespack	Seats (Total: 25)
	Meets March 28, 2022 - May 12, 2022	
	TuTh 8:45pm - 10:15pm	ONLINE
	Class time/details on ELMs	ONLINE

BSCI Biological Sciences Program Spring 2022

BSCI courses are offered by the Biological Science Program and individual College of Computer, Mathematical and Natural Sciences departments, as indicated. The sponsoring department for each course is provided in the course listing. Consult the sponsoring department if you have questions about an individual course (sponsoring departments BIOL - Department of Biology, 2227 Biol-Psyc Building; BSCI - Biological Sciences Program, 1322 Symons Hall; CBMG - Department of Cell Biology and Molecular Genetics, 1219 H.J. Patterson Building; ENTM - Entomology, 4112 PLS Building). Registration in course sections which begin with "SES" is restricted to students admitted into the Science in the Evening Program, administered through the Office of Extended Studies. For complete information, visit: http://oes.umd.edu/index.php?slab=sie, e-mail oes@umd.edu , or call 301-405-7762. The following courses may involve the use of animals. Students who are concerned about the use of animals in teaching have the responsibility to consult the instructor prior to course enrollment to determine whether animals are to be used in the course, whether class exercises involving animals are optional or required, and what alternatives, if any, are available. The College of Computer, Mathematical, and Natural Sciences enforces course prerequisites. Students who do not meet the course prerequisites will be administratively dropped from the course.*

BSCI103 **The World of Biology**

Credits: 4 Grading Method: Regular, Pass-Fail CORE: LL General Education: DSNL

Additional information: Not acceptable for degree requirements in Biological Sciences, Chemistry, or Biochemistry.

An introduction to modern biology for the non-science major. Major themes include molecular biology, cell biology, evolution and organismal biology. Relevance of study of biology to modern human life will be emphasized.

(Sponsoring Dept.: BSCI). Students must pay a $40.00 laboratory materials fee.

1100	Anahi Espindola, Magdalene Ngeve TuTh 12:30pm - 1:45pm M 8:00am - 10:50am	Seats (Total: 24) ESJ 0224 HJP 3239	Lab
1101	Magdalene Ngeve, Anahi Espindola TuTh 12:30pm - 1:45pm M 11:00am - 1:50pm	Seats (Total: 24) ESJ 0224 HJP 3239	Lab
1103	Anahi Espindola, Magdalene Ngeve TuTh 12:30pm - 1:45pm M 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0224 HJP 3239	Lab
1105	Magdalene Ngeve, Anahi Espindola TuTh 12:30pm - 1:45pm M 5:00pm - 7:50pm	Seats (Total: 24) ESJ 0224 HJP 3239	Lab
1107	Anahi Espindola, Magdalene Ngeve TuTh 12:30pm - 1:45pm Tu 8:00am - 10:50am	Seats (Total: 24) ESJ 0224 HJP 3239	Lab
1108	Anahi Espindola, Magdalene Ngeve TuTh 12:30pm - 1:45pm Tu 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0224 HJP 3239	Lab
1109	Magdalene Ngeve, Anahi Espindola TuTh 12:30pm - 1:45pm Tu 5:00pm - 7:50pm	Seats (Total: 24) ESJ 0224 HJP 3239	Lab

BSCI103M **The World of Biology**

(Perm req)

Credits: 4 | Grading Method: Regular, Pass-Fail | CORE: LL | General Education: DSNL

Additional information: Not acceptable for degree requirements in Biological Sciences, Chemistry, or Biochemistry.

An introduction to modern biology for the non-science major. Major themes include molecular biology, cell biology, evolution and organismal biology. Relevance of study of biology to modern human life will be emphasized.

(Sponsoring Dept.: BSCI). Must be taken within 12 months of the semester in which BSCI 103 is taken. A student is eligible to take this course only if the lab scores received in BSCI 103 the last time it was taken totalled at least 80 percent of the maximum possible total. These scores will count for part of the grade in BSCI 103M.

0101	Anahi Espindola TuTh 12:30pm - 1:45pm TBA	Seats (Total: 24) Location: TBA HJP 3239	 Lab

BSCI120 **Insects**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: LS | General Education: DSNS

A survey of the major groups of insects, their natural history, and their relationships with humans and their environment. Course not acceptable toward major requirements in Biological Sciences, Chemistry or Biochemistry.

(Sponsoring Dept.: ENTM).

0101	Dennis vanEngelsdorp, Anthony Nearman, Cerruti Hooks Tu 2:00pm - 2:50pm Class time/details on ELMs Th 12:00pm - 12:50pm	Seats (Total: 21) PLS 1119 ONLINE PLS 1161	 Discussion
0102	Cerruti Hooks, Anthony Nearman, Dennis vanEngelsdorp Tu 2:00pm - 2:50pm Class time/details on ELMs Th 11:00am - 11:50am	Seats (Total: 21) PLS 1119 ONLINE PLS 1161	 Discussion

BSCI135 **Amazing Green: Plants that Transformed the World**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: LL | General Education: DSNL, SCIS

An interactive way to learn about plants and science, focusing on how plants have changed human history, the biology of their growth, and the science behind their use.

1101	Edgar Moctezuma TuTh 2:00pm - 3:15pm M 12:00pm - 1:50pm	Seats (Total: 24) HJP 0226 HJP 3237	 Lab

1102	Edgar Moctezuma TuTh 2:00pm - 3:15pm Tu 11:00am - 12:50pm	Seats (Total: 24) HJP 0226 HJP 3237	Lab
1103	Edgar Moctezuma TuTh 2:00pm - 3:15pm Tu 3:30pm - 5:20pm	Seats (Total: 24) HJP 0226 HJP 3237	Lab
1104	Edgar Moctezuma TuTh 2:00pm - 3:15pm W 9:00am - 10:50am	Seats (Total: 24) HJP 0226 HJP 3237	Lab
1105	Edgar Moctezuma TuTh 2:00pm - 3:15pm Th 11:00am - 12:50pm	Seats (Total: 24) HJP 0226 HJP 3237	Lab

BSCI160 **Principles of Ecology and Evolution**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNL (if taken with BSCI161), DSNS

Prerequisite: Must have math eligibility of MATH120 or higher. Recommended: For Science majors. Credit only granted for: BSCI106 or BSCI160. Formerly: BSCI106.

Basic principles of biology with special emphasis on ecological and evolutionary biology.

(Sponsoring Dept.: BSCI).

6101	Marjorie Reaka TuTh 2:00pm - 3:15pm	Seats (Total: 150) BRB 1101	
6201	Magdalene Ngeve TuTh 9:30am - 10:45am	Seats (Total: 140) ESJ 2208	
6301	Leo Shapiro MWF 11:00am - 11:50am	Seats (Total: 140) HJP 0226	

BSCI161 **Principles of Ecology and Evolution Lab**

Credits: 1 | Grading Method: Regular, Pass-Fail

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: BSCI160. Recommended: For Science majors.

Basic laboratory principles of biology with special emphasis on ecological and evolutionary biology.

(Sponsoring Dept.: BSCI). Students must pay a $40.00 laboratory materials fee.

6104	Hans Lemke, Francisca Saavedra M 10:00am - 12:50pm	Seats (Total: 23) HJP 3211	Lab
6107	Hans Lemke, Francisca Saavedra M 3:00pm - 5:50pm	Seats (Total: 23) HJP 3211	Lab
6108	Francisca Saavedra, Hans Lemke M 3:00pm - 5:50pm	Seats (Total: 23) HJP 3217	Lab
6204	Hans Lemke, Francisca Saavedra Tu 10:00am - 12:50pm	Seats (Total: 23) HJP 3211	Lab
6207	Hans Lemke, Francisca Saavedra Tu 2:00pm - 4:50pm	Seats (Total: 23) HJP 3211	Lab
6208	Hans Lemke, Francisca Saavedra Tu 2:00pm - 4:50pm	Seats (Total: 23) HJP 3217	Lab
6211	Francisca Saavedra, Hans Lemke Tu 5:00pm - 7:50pm	Seats (Total: 23) HJP 3217	Lab
6304	Hans Lemke, Francisca Saavedra W 11:00am - 1:50pm	Seats (Total: 23) HJP 3211	Lab
6305	Hans Lemke, Francisca Saavedra W 10:00am - 12:50pm	Seats (Total: 23) HJP 3217	Lab
6307	Hans Lemke, Francisca Saavedra W 2:00pm - 4:50pm	Seats (Total: 23) HJP 3211	Lab
6308	Francisca Saavedra, Hans Lemke W 2:00pm - 4:50pm	Seats (Total: 23) HJP 3217	Lab
6404	Hans Lemke, Francisca Saavedra Th 11:00am - 1:50pm	Seats (Total: 23) HJP 3211	Lab
6407	Francisca Saavedra, Hans Lemke Th 2:00pm - 4:50pm	Seats (Total: 23) HJP 3211	Lab

6408	Hans Lemke, Francisca Saavedra Th 2:00pm - 4:50pm	Seats (Total: 23) HJP 3217	Lab

BSCI170 **Principles of Molecular & Cellular Biology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNL (if taken with BSCI171), DSNS

Prerequisite: Must have math eligibility of MATH120 or higher. Recommended: For Science majors. Credit only granted for: BSCI105 or BSCI170. Formerly: BSCI105.

Basic principles of biology with special emphasis on cellular and molecular biology.

(Sponsoring Dept.: BSCI).

0101	Michael Keller MWF 11:00am - 11:50am	Seats (Total: 195) ESJ 0224
0201	Nicholas Fletcher MWF 8:00am - 8:50am	Seats (Total: 195) ESJ 0224
0301	Reid Compton TuTh 9:30am - 10:45am	Seats (Total: 195) ESJ 0224
0401	Michael Keller MWF 1:00pm - 1:50pm	Seats (Total: 195) ESJ 0202
0501	Anne Simon MWF 12:00pm - 12:50pm	Seats (Total: 195) ESJ 0224
SES1	James Sniezek Tu 6:00pm - 8:50pm *Must be in the Science in the Evening (SIE) Program. Click here for more information.*	Seats (Total: 20) HBK 0108

BSCI171 **Principles of Molecular & Cellular Biology Laboratory**

Credits: 1 | Grading Method: Regular, Pass-Fail

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: BSCI170. Recommended: For Science majors.

Basic laboratory principles of biology with special emphasis on cellular and molecular biology.

(Sponsoring Dept.: BSCI). Students must pay a $40.00 laboratory materials fee.

1021	Swarna Mohan M 11:00am - 1:50pm	Seats (Total: 24) HJP 1236	Lab
1023	Swarna Mohan M 11:00am - 1:50pm	Seats (Total: 24) HJP 1235	Lab
1031	Swarna Mohan M 2:00pm - 4:50pm	Seats (Total: 24) HJP 1236	Lab
1032	Swarna Mohan M 2:00pm - 4:50pm	Seats (Total: 24) HJP 1226	Lab
1033	Swarna Mohan M 2:00pm - 4:50pm	Seats (Total: 24) HJP 1235	Lab
1034	Swarna Mohan M 2:00pm - 4:50pm	Seats (Total: 24) HJP 1229	Lab
1043	Swarna Mohan M 5:00pm - 7:50pm	Seats (Total: 24) HJP 1235	Lab
2021	Swarna Mohan Tu 11:00am - 1:50pm	Seats (Total: 24) HJP 1236	Lab
2022	Swarna Mohan Tu 11:00am - 1:50pm	Seats (Total: 24) HJP 1226	Lab
2023	Swarna Mohan Tu 11:00am - 1:50pm	Seats (Total: 24) HJP 1235	Lab
2024	Swarna Mohan Tu 11:00am - 1:50pm	Seats (Total: 24) HJP 1229	Lab
2031	Swarna Mohan Tu 2:00pm - 4:50pm	Seats (Total: 24) HJP 1236	Lab
2033	Swarna Mohan Tu 2:00pm - 4:50pm	Seats (Total: 24) HJP 1235	Lab

2034	Swarna Mohan Tu 2:00pm - 4:50pm	Seats (Total: 24) HJP 1229	Lab
2041	Swarna Mohan Tu 6:00pm - 8:50pm	Seats (Total: 24) HJP 1236	Lab
2042	Swarna Mohan Tu 6:00pm - 8:50pm	Seats (Total: 24) HJP 1226	Lab
3021	Swarna Mohan W 10:00am - 12:50pm	Seats (Total: 24) HJP 1236	Lab
3022	Swarna Mohan W 10:00am - 12:50pm	Seats (Total: 24) HJP 1226	Lab
3023	Swarna Mohan W 10:00am - 12:50pm	Seats (Total: 24) HJP 1235	Lab
3031	Swarna Mohan W 2:00pm - 4:50pm	Seats (Total: 24) HJP 1236	Lab
3032	Swarna Mohan W 2:00pm - 4:50pm	Seats (Total: 24) HJP 1226	Lab
3033	Swarna Mohan W 2:00pm - 4:50pm	Seats (Total: 24) HJP 1235	Lab
3034	Swarna Mohan W 2:00pm - 4:50pm	Seats (Total: 24) HJP 1229	Lab
3041	Swarna Mohan W 5:00pm - 7:50pm	Seats (Total: 24) HJP 1236	Lab
3043	Swarna Mohan W 5:00pm - 7:50pm	Seats (Total: 24) HJP 1235	Lab
4021	Swarna Mohan Th 11:00am - 1:50pm	Seats (Total: 24) HJP 1236	Lab
4022	Swarna Mohan Th 11:00am - 1:50pm	Seats (Total: 24) HJP 1226	Lab

4023	Swarna Mohan Th 11:00am - 1:50pm	Seats (Total: 24) HJP 1235	Lab
4024	Swarna Mohan Th 11:00am - 1:50pm	Seats (Total: 24) HJP 1229	Lab
4031	Swarna Mohan Th 2:00pm - 4:50pm	Seats (Total: 24) HJP 1236	Lab
4032	Swarna Mohan Th 2:00pm - 4:50pm	Seats (Total: 24) HJP 1226	Lab
4033	Swarna Mohan Th 2:00pm - 4:50pm	Seats (Total: 24) HJP 1235	Lab
4034	Swarna Mohan Th 2:00pm - 4:50pm	Seats (Total: 24) HJP 1229	Lab
4042	Swarna Mohan Th 6:00pm - 8:50pm	Seats (Total: 24) HJP 1226	Lab
4043	Swarna Mohan Th 6:00pm - 8:50pm	Seats (Total: 24) HJP 1235	Lab
4044	Swarna Mohan Th 6:00pm - 8:50pm	Seats (Total: 24) HJP 1229	Lab
SES1	Swarna Mohan Th 6:00pm - 8:50pm *Must be in the Science in the Evening (SIE) Program. Click here for more information.*	Seats (Total: 20) HJP 1236	Lab

BSCI171S **Principles of Molecular & Cellular Biology Laboratory**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: BSCI170. Recommended: For Science majors.

Basic laboratory principles of biology with special emphasis on cellular and molecular biology.

(Sponsoring Dept.: BSCI). Students must pay a $40.00 laboratory materials fee. Restricted to College Park Scholars - Life Sciences.

1041	Swarna Mohan M 5:00pm - 7:50pm	Seats (Total: 24) HJP 1236	Lab
2032	Swarna Mohan Tu 2:00pm - 4:50pm	Seats (Total: 24) HJP 1226	Lab

BSCI201 **Human Anatomy and Physiology I**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: LL | General Education: DSNL

Prerequisite: BSCI170 and BSCI171; or BSCI105; or students who have taken courses with comparable content may contact the department.

Anatomy and physiology of the skeletal, muscular, neural, endocrine, and sensory systems. Course not acceptable toward major requirements in Biological Sciences, Chemistry or Biochemistry.

(Sponsoring Dept.: BIOL). Students must pay a $40.00 laboratory materials fee.

0101	Justicia Opoku-Edusei, Caitlin Fox MWF 12:00pm - 12:50pm M 5:00pm - 7:50pm	Seats (Total: 24) BRB 1101 BPS 0205	Lab
0103	Caitlin Fox, Justicia Opoku-Edusei MWF 12:00pm - 12:50pm Tu 11:00am - 1:50pm	Seats (Total: 24) BRB 1101 BPS 0205	Lab
0105	Caitlin Fox, Justicia Opoku-Edusei MWF 12:00pm - 12:50pm Tu 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0205	Lab
0106	Justicia Opoku-Edusei, Caitlin Fox MWF 12:00pm - 12:50pm Tu 5:00pm - 7:50pm	Seats (Total: 24) BRB 1101 BPS 0205	Lab
0107	Caitlin Fox, Justicia Opoku-Edusei MWF 12:00pm - 12:50pm W 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0205	Lab
0108	Caitlin Fox, Justicia Opoku-Edusei MWF 12:00pm - 12:50pm W 5:00pm - 7:50pm	Seats (Total: 24) BRB 1101 BPS 0205	Lab

0110	Caitlin Fox, Justicia Opoku-Edusei MWF 12:00pm - 12:50pm Th 11:00am - 1:50pm	Seats (Total: 24) BRB 1101 BPS 0205	 Lab
0111	Caitlin Fox, Justicia Opoku-Edusei MWF 12:00pm - 12:50pm M 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0205	 Lab
1101	Sara Lombardi, Caitlin Fox TuTh 12:30pm - 1:45pm M 11:00am - 1:50pm	Seats (Total: 24) ESJ 0202 BPS 0205	 Lab
1103	Sara Lombardi, Caitlin Fox TuTh 12:30pm - 1:45pm M 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0202 BPS 0275	 Lab
1104	Sara Lombardi, Caitlin Fox TuTh 12:30pm - 1:45pm M 5:00pm - 7:50pm	Seats (Total: 24) ESJ 0202 BPS 0275	 Lab
1105	Sara Lombardi, Caitlin Fox TuTh 12:30pm - 1:45pm Tu 8:00am - 10:50am	Seats (Total: 24) ESJ 0202 BPS 0275	 Lab
1106	Sara Lombardi, Caitlin Fox TuTh 12:30pm - 1:45pm Tu 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0202 BPS 0275	 Lab
1107	Sara Lombardi, Caitlin Fox TuTh 12:30pm - 1:45pm Tu 5:00pm - 7:50pm	Seats (Total: 24) ESJ 0202 BPS 0275	 Lab
1108	Sara Lombardi, Caitlin Fox TuTh 12:30pm - 1:45pm W 8:00am - 10:50am	Seats (Total: 24) ESJ 0202 BPS 0205	 Lab
1109	Sara Lombardi, Caitlin Fox TuTh 12:30pm - 1:45pm W 11:00am - 1:50pm	Seats (Total: 24) ESJ 0202 BPS 0205	 Lab

1110	Caitlin Fox, Sara Lombardi TuTh 12:30pm - 1:45pm Th 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0202 BPS 0205	 Lab

BSCI202 **Human Anatomy and Physiology II**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI201; or permission of CMNS-Biology department.

Anatomy and physiology of the cardiovascular, respiratory, immune, digestive, urinary and reproductive systems. Course not acceptable toward major requirements in Biological Sciences, Chemistry or Biochemistry.

(Sponsoring Dept.: BIOL). Students must pay a $40.00 laboratory materials fee.

0101	Tammatha O'Brien, Caitlin Fox TuTh 8:00am - 9:15am M 11:00am - 1:50pm	Seats (Total: 24) ESJ 0202 BPS 0201	 Lab
0102	Tammatha O'Brien, Caitlin Fox TuTh 8:00am - 9:15am Tu 9:30am - 12:20pm	Seats (Total: 24) ESJ 0202 BPS 0201	 Lab
0103	Tammatha O'Brien, Caitlin Fox TuTh 8:00am - 9:15am Tu 3:30pm - 6:20pm	Seats (Total: 24) ESJ 0202 BPS 0201	 Lab
0104	Tammatha O'Brien, Caitlin Fox TuTh 8:00am - 9:15am W 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0202 BPS 0201	 Lab
0105	Caitlin Fox, Tammatha O'Brien TuTh 8:00am - 9:15am W 5:00pm - 7:50pm	Seats (Total: 24) ESJ 0202 BPS 0201	 Lab
0106	Caitlin Fox, Tammatha O'Brien TuTh 8:00am - 9:15am Th 9:30am - 12:20pm	Seats (Total: 24) ESJ 0202 BPS 0201	 Lab

0108	Caitlin Fox, Tammatha O'Brien TuTh 8:00am - 9:15am Th 12:30pm - 3:20pm	Seats (Total: 24) ESJ 0202 BPS 0201	 Lab
0109	Tammatha O'Brien, Caitlin Fox TuTh 8:00am - 9:15am Th 6:30pm - 9:20pm	Seats (Total: 24) ESJ 0202 BPS 0201	 Lab
0110	Caitlin Fox, Tammatha O'Brien TuTh 8:00am - 9:15am M 8:00am - 10:50am	Seats (Total: 24) ESJ 0202 BPS 0201	 Lab
1101	Caitlin Fox, Sara Lombardi TuTh 9:30am - 10:45am M 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0201	 Lab
1102	Sara Lombardi, Caitlin Fox TuTh 9:30am - 10:45am M 5:00pm - 7:50pm	Seats (Total: 24) BRB 1101 BPS 0201	 Lab
1103	Caitlin Fox, Sara Lombardi TuTh 9:30am - 10:45am Tu 12:30pm - 3:20pm	Seats (Total: 24) BRB 1101 BPS 0201	 Lab
1104	Sara Lombardi, Caitlin Fox TuTh 9:30am - 10:45am Tu 6:30pm - 9:20pm	Seats (Total: 24) BRB 1101 BPS 0201	 Lab
1105	Caitlin Fox, Sara Lombardi TuTh 9:30am - 10:45am W 8:00am - 10:50am	Seats (Total: 24) BRB 1101 BPS 0201	 Lab
1106	Caitlin Fox, Sara Lombardi TuTh 9:30am - 10:45am W 11:00am - 1:50pm	Seats (Total: 24) BRB 1101 BPS 0201	 Lab
1107	Caitlin Fox, Sara Lombardi TuTh 9:30am - 10:45am Th 12:30pm - 3:20pm	Seats (Total: 24) BRB 1101 BPS 0275	 Lab

1108	Sara Lombardi, Caitlin Fox TuTh 9:30am - 10:45am Th 3:30pm - 6:20pm	Seats (Total: 24) BRB 1101 BPS 0201	 Lab

BSCI207 **Principles of Biology III - Organismal Biology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI160 and BSCI161; or BSCI106. And BSCI170 and BSCI171; or BSCI105. And must have completed or be concurrently enrolled in CHEM131.

The diversity, structure and function of organisms as understood from the perspective of their common physicochemical principles and unique evolutionary histories.

(Sponsoring Dept.: BSCI).

0201	Nicholas Fletcher TuTh 2:00pm - 3:15pm	Seats (Total: 170) JMZ 0220	

BSCI222 **Principles of Genetics**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM131 and CHEM132; and (BSCI160 and BSCI161; or BSCI106); and (BSCI170 and BSCI171; or BSCI105). Or must have completed BSCI105 or (BSCI170 and BSCI171); and two semesters of chemistry.

Principles and mechanisms of heredity and gene expression. Considers plant, animal, and microbial organisms.

(Sponsoring Dept.: BSCI).

7106	David Straney MWF 1:00pm - 1:50pm M 4:00pm - 5:50pm	Seats (Total: 23) BRB 1101 PLS 1121	 Discussion
7108	David Straney MWF 1:00pm - 1:50pm W 4:00pm - 5:50pm	Seats (Total: 23) BRB 1101 HJP 3233	 Discussion
7110	David Straney MWF 1:00pm - 1:50pm Th 10:00am - 11:50am	Seats (Total: 23) BRB 1101 HJP 3233	 Discussion

7112	David Straney MWF 1:00pm - 1:50pm Tu 6:00pm - 7:50pm	Seats (Total: 23) BRB 1101 HJP 3233	Discussion
7116	David Straney MWF 1:00pm - 1:50pm Tu 10:00am - 11:50am	Seats (Total: 23) BRB 1101 HJP 3233	Discussion
7118	David Straney MWF 1:00pm - 1:50pm Th 12:00pm - 1:50pm	Seats (Total: 23) BRB 1101 HJP 3233	Discussion
7120	David Straney MWF 1:00pm - 1:50pm Th 8:00am - 9:50am	Seats (Total: 23) BRB 1101 PLS 1121	Discussion
7130	David Straney MWF 1:00pm - 1:50pm Th 2:00pm - 3:50pm	Seats (Total: 23) BRB 1101 PLS 1121	Discussion
7133	David Straney MWF 1:00pm - 1:50pm Tu 6:00pm - 7:50pm	Seats (Total: 23) BRB 1101 PLS 1121	Discussion
7214	Kimberly Paczolt TuTh 12:30pm - 1:45pm W 12:00pm - 1:50pm	Seats (Total: 23) BRB 1101 HJP 3233	Discussion
7216	Kimberly Paczolt TuTh 12:30pm - 1:45pm W 2:00pm - 3:50pm	Seats (Total: 23) BRB 1101 PLS 1121	Discussion
7218	Kimberly Paczolt TuTh 12:30pm - 1:45pm W 4:00pm - 5:50pm	Seats (Total: 23) BRB 1101 PLS 1121	Discussion
7221	Kimberly Paczolt TuTh 12:30pm - 1:45pm M 12:00pm - 1:50pm	Seats (Total: 23) BRB 1101 PLS 1121	Discussion

7222	Kimberly Paczolt TuTh 12:30pm - 1:45pm M 2:00pm - 3:50pm	Seats (Total: 23) BRB 1101 HJP 3233	Discussion
7224	Kimberly Paczolt TuTh 12:30pm - 1:45pm Tu 2:00pm - 3:50pm	Seats (Total: 23) BRB 1101 HJP 3233	Discussion
7232	Kimberly Paczolt TuTh 12:30pm - 1:45pm M 6:00pm - 7:50pm	Seats (Total: 23) BRB 1101 HJP 3233	Discussion
7236	Kimberly Paczolt TuTh 12:30pm - 1:45pm Tu 10:00am - 11:50am	Seats (Total: 23) BRB 1101 PLS 1121	Discussion
7310	Raymond StLeger TuTh 9:30am - 10:45am Tu 4:00pm - 5:50pm	Seats (Total: 23) HJP 0226 HJP 3233	Discussion
7312	Raymond StLeger TuTh 9:30am - 10:45am M 10:00am - 11:50am	Seats (Total: 23) HJP 0226 HJP 3233	Discussion
7313	Raymond StLeger TuTh 9:30am - 10:45am M 2:00pm - 3:50pm	Seats (Total: 23) HJP 0226 PLS 1121	Discussion
7315	Raymond StLeger TuTh 9:30am - 10:45am W 2:00pm - 3:50pm	Seats (Total: 23) HJP 0226 HJP 3233	Discussion
7320	Raymond StLeger TuTh 9:30am - 10:45am M 4:00pm - 5:50pm	Seats (Total: 23) HJP 0226 HJP 3233	Discussion
7325	Raymond StLeger TuTh 9:30am - 10:45am W 6:00pm - 7:50pm	Seats (Total: 23) HJP 0226 HJP 3233	Discussion

7330	Raymond StLeger TuTh 9:30am - 10:45am W 12:00pm - 1:50pm	Seats (Total: 23) HJP 0226 PLS 1121	Discussion
7332	Raymond StLeger TuTh 9:30am - 10:45am Tu 2:00pm - 3:50pm	Seats (Total: 23) HJP 0226 PLS 1121	Discussion
7335	Raymond StLeger TuTh 9:30am - 10:45am W 10:00am - 11:50am	Seats (Total: 23) HJP 0226 HJP 3233	Discussion
SES1	Keith Lampel Tu 6:00pm - 8:50pm Th 6:00pm - 7:50pm *Must be in the Science in the Evening (SIE) Program. Click here for more information.*	Seats (Total: 20) PLS 1119 HJP 3233	Discussion

BSCI223 **General Microbiology**

Credits: 4	Grading Method: Regular, Pass-Fail, Audit	CORE: LL	General Education: DSNL, SCIS

Prerequisite: BSCI170 and BSCI171; or BSCI105. Credit only granted for: BSCI223 or BSCI283.

Fundamental concepts in morphology, physiology, genetics, immunology, ecology, and pathogenic microbiology. Applications of microbiology to medicine, the food industry and biotechnology.

(Sponsoring Dept.: CBMG) Students must pay a $40.00 laboratory materials fee.

1021	Erin Tran TuTh 11:00am - 11:50am TuTh 9:00am - 10:50am	Seats (Total: 20) BRB 1101 MCB 1201	Lab
1025	Erin Tran TuTh 11:00am - 11:50am TuTh 9:00am - 10:50am	Seats (Total: 20) BRB 1101 MCB 1205	Lab
1026	Erin Tran TuTh 11:00am - 11:50am TuTh 9:00am - 10:50am	Seats (Total: 20) BRB 1101 MCB 1206	Lab

1101	Erin Tran TuTh 11:00am - 11:50am MW 10:00am - 11:50am	Seats (Total: 20) BRB 1101 MCB 1201	Lab
1105	Erin Tran TuTh 11:00am - 11:50am MW 10:00am - 11:50am	Seats (Total: 20) BRB 1101 MCB 1205	Lab
1106	Erin Tran TuTh 11:00am - 11:50am MW 10:00am - 11:50am	Seats (Total: 20) BRB 1101 MCB 1206	Lab
1121	Erin Tran TuTh 11:00am - 11:50am TuTh 12:00pm - 1:50pm	Seats (Total: 20) BRB 1101 MCB 1201	Lab
1125	Erin Tran TuTh 11:00am - 11:50am TuTh 12:00pm - 1:50pm	Seats (Total: 20) BRB 1101 MCB 1205	Lab
1126	Erin Tran TuTh 11:00am - 11:50am TuTh 12:00pm - 1:50pm	Seats (Total: 20) BRB 1101 MCB 1206	Lab
1201	Erin Tran TuTh 11:00am - 11:50am MW 12:00pm - 1:50pm	Seats (Total: 20) BRB 1101 MCB 1201	Lab
1206	Erin Tran TuTh 11:00am - 11:50am MW 12:00pm - 1:50pm	Seats (Total: 20) BRB 1101 MCB 1206	Lab
1221	Erin Tran TuTh 11:00am - 11:50am TuTh 2:00pm - 3:50pm	Seats (Total: 20) BRB 1101 MCB 1201	Lab
1225	Erin Tran TuTh 11:00am - 11:50am TuTh 2:00pm - 3:50pm	Seats (Total: 20) BRB 1101 MCB 1205	Lab

1226	Erin Tran TuTh 11:00am - 11:50am TuTh 2:00pm - 3:50pm	Seats (Total: 20) BRB 1101 MCB 1206	 Lab
1301	Erin Tran TuTh 11:00am - 11:50am MW 2:00pm - 3:50pm	Seats (Total: 20) BRB 1101 MCB 1201	 Lab
1306	Erin Tran TuTh 11:00am - 11:50am MW 2:00pm - 3:50pm	Seats (Total: 20) BRB 1101 MCB 1206	 Lab
2401	Erin Tran TuTh 11:00am - 11:50am MW 4:00pm - 5:50pm	Seats (Total: 20) BRB 1101 MCB 1201	 Lab
2406	Erin Tran TuTh 11:00am - 11:50am MW 4:00pm - 5:50pm	Seats (Total: 20) BRB 1101 MCB 1206	 Lab
SES1	John Buchner, Erin Tran TuTh 6:00pm - 6:50pm TuTh 7:00pm - 9:00pm *Must be in the Science in the Evening (SIE) Program. Click here for more information.*	Seats (Total: 20) MCB 1207 MCB 1201	 Lab
SES2	Erin Tran, John Buchner TuTh 6:00pm - 6:50pm TuTh 7:00pm - 9:00pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 20) MCB 1207 MCB 1205	 Lab

BSCI238D **Special Topics in Biology Student Initiated Courses; A Primer on Research Kits in the Life Sciences**

Credits: 1 Grading Method: Regular, Pass-Fail

Student Initiated Course (STIC) in Biology. Course will be student initiated and taught under close supervision of faculty mentor. Student instructor and faculty mentor must generate proposal and have approval of the Biological Sciences Program to offer a BSCI238 STIC. BSCI238 cannot be applied to the degree requirements of any biological sciences major.

Prerequisites: BSCI171 and BSCI222. This course will combat the "Kit Mentality" by explaing the "whys" behind the most widely used technologies in the biological research field. The student facilitator is Kevin Tu.

0101	Jonathan Dinman, Laurie Koehler, Kevin Tu	Seats (Total: 25)
	Tu 5:00pm - 5:50pm Class time/details on ELMs	HBK 1112 ONLINE

BSCI238G **Special Topics in Biology Student Initiated Courses; Introduction to Shell Scripting for the Life Sciences**

Credits: 1 Grading Method: Regular, Pass-Fail

Student Initiated Course (STIC) in Biology. Course will be student initiated and taught under close supervision of faculty mentor. Student instructor and faculty mentor must generate proposal and have approval of the Biological Sciences Program to offer a BSCI238 STIC. BSCI238 cannot be applied to the degree requirements of any biological sciences major.

Corequisite: Any of STAT100, STAT4XX, BIOM301, MATH141 or higher, MATH135 or higher, or permission of the instructor. Restrictions: Must be a major within the biological, Biochemical, or Public Health sciences departments; or obtain permission of the instructor. This course will teach life science majors the basics of the Bash shell, scripting, and the command line environment. Students will learn about navigating the shell, using and combining commands, and basic scripting, all in the context of biologically relevant applications. No prior programming experience is assumed.

0101	Brian Pierce, Spencer Chan	Seats (Total: 15)
	F 2:00pm - 2:50pm	PLS 1121
	Student Facilitator: Spence Skylar Chan.	

BSCI258 **College Park Scholars Internship**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Credit to be determined by CPS Director. Must be completed by end of sophomore year.

(Sponsoring Dept.: BSCI).

8005	Jimmy McClellan	Seats (Total: 90)
	Contact instructor or department for details.	

BSCI279 **Supplemental Study; Supplemental Study in Biology**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

(Sponsoring Dept.: BIOL).

Contact department for information to register for this course.

BSCI279B **Supplemental Study; BioFIRE Spring Colloquium**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

Restricted to BioFire students.

0101	Jennifer Carrion, Katerina Thompson Tu 3:30pm - 4:45pm	Seats (Total: 60) ESJ 2204

BSCI279C **Supplemental Study; Catalyst Program Seminar**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

(Sponsoring Dept: BIOL).

0101	Katerina Thompson M 3:30pm - 4:45pm Class time/details on ELMs	Seats (Total: 47) BPS 1250 ONLINE

BSCI279H **Supplemental Study; Catalyst Program Seminar**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

(Sponsoring Dept: BIOL).

0101	Katerina Thompson M 3:30pm - 4:45pm Class time/details on ELMs	Seats (Total: 70) BPS 1250 ONLINE

BSCI279P **Supplemental Study; Undergraduate Teaching Fellows Professional Development Seminar**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

Prerequisite: permission of department.

Contact department for information to register for this course.

BSCI279Q **Supplemental Study; Readings in Neurophysiology**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

(Sponsoring Dept.: BIOL).

0101	Elizabeth Quinlan, Ricardo Araneda, Daniel Butts Contact instructor or department for details.	Seats (Total: 10)

BSCI279R **Supplemental Study; Undergraduate Research Rotation**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

(Sponsoring Dept.: CBMG).

Contact department for information to register for this course.

BSCI279T **Supplemental Study; BSCI Learning Assistants**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

Contact department for information to register for this course.

BSCI279W **Supplemental Study; Problem Solving for Molecular Courses**

Credits: 1 Grading Method: Regular

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

0101	Louisa Wu M 6:00pm - 8:00pm	Seats (Total: 20) PLS 1113	

BSCI283 **Principles of Microbiology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit General Education: DSNL, SCIS

Prerequisite: BSCI222. Restriction: Must be in a major within Biological Sciences; or permission of CMNS-Cell Biology & Molecular Genetics. Credit only granted for: BSCI223 or BSCI283. Additional information: Priority given to BSCI, BCHM and CHEM majors.

Introduction to microorganisms designed for science majors. Genetic principles underlying microbial abilities; microbial structure-function relationships; metabolism, physiology, and ecology of microorganisms; interactions between microorganisms (including pathogens) and their hosts.

(Sponsoring Dept.: CBMG). Students must pay a $40.00 laboratory materials fee.

1205	Wade Winkler, Daniel Stein MW 10:00am - 10:50am MW 12:00pm - 1:50pm	Seats (Total: 20) ESJ 1309 MCB 1205	 Lab
1305	Daniel Stein, Wade Winkler MW 10:00am - 10:50am MW 2:00pm - 3:50pm	Seats (Total: 20) ESJ 1309 MCB 1205	 Lab

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BSCI289 **Off-Campus Internship**

(Perm req)

Credits: 1-3 Grading Method: Sat-Fail

Elective credit for formally established off-campus research internship. Permission of Director of Outreach required.

(Sponsoring Dept.: BSCI). Provides credit for off-campus research internships. This credit counts as elective toward graduation, but does not satisfy any Biological Sciences degree requirements (For information about research credit that does count toward Biological Sciences contact the Biological Sciences Program, room 1322 Symons Hall). This requires that a contract form be filed with the Director of Undergraduate Research and Internship Programs, Room 1313 Symons Hall, prior to the internship. The contract must be finalized and signed by the research supervisor at the end of the semester before credit will be awarded.

1110	Katerina Thompson Contact instructor or department for details.	Seats (Total: 15)
1111	Katerina Thompson Contact instructor or department for details.	Seats (Total: 50)

BSCI302 **Foundations of Applied Global Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D

Restriction: Restricted to students in the Biological Sciences program at Shady Grove.

An exploration of sociocultural, economic,political, biological, and environmental factors that contribute to global andcommunity health. Students will be introduced to the world's vast diversity ofdeterminants of health and disease and will analyze current and emerging globalhealth priorities, including the major infectious diseases, nutritional,noncommunicable, neuropsychiatric, and other causes of morbidity, mortality,and disability in each world region.

ESG1	Gregory Simon W 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 30) BLD4 4321 ONLINE
	Registration is restricted to Biological Sciences - Shady Grove majors.	

BSCI329 **Instructional Assistance Practicum**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Students serve as instructional assistants in selected undergraduate biology courses. Roles and responsibilities are determined on a course- specific basis and approved by the College Undergraduate Program Committee.

(Sponsoring Dept.: BIOL). Credit cannot be applied to the requirements of any Biological Sciences Major. Prerequiste: permission of department.

1016	Hilary Bierman Contact instructor or department for details.	Seats (Total: 5)

1020	Gerald Borgia Contact instructor or department for details.	Seats (Total: 5)
1028	Daniel Butts Contact instructor or department for details.	Seats (Total: 10)
1033	Chan Lin Contact instructor or department for details.	Seats (Total: 10)
1250	Justicia Opoku-Edusei Contact instructor or department for details.	Seats (Total: 20)
ESG1	Hadiya Woodham Contact instructor or department for details.	Seats (Total: 7)

BSCI329H **Instructional Assistance Practicum; Honors Instructional Assistance Practicum**

(Perm req)

Credits: 1-2 Grading Method: Regular, Pass-Fail, Audit

Students serve as instructional assistants in selected undergraduate biology courses. Roles and responsibilities are determined on a course- specific basis and approved by the College Undergraduate Program Committee.

(Sponsoring Dept.: BIOL). Credit cannot be applied to the requirements of any Biological Sciences Major. Prerequiste: permission of department.

2080	Todd Cooke, Sabrina Kramer Contact instructor or department for details.	Seats (Total: 20)

BSCI330 **Cell Biology and Physiology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHEM131 and CHEM132. And minimum grade of C- in BSCI170 and BSCI171; or minimum grade of C- in BSCI105. Restriction: Must not have completed BSCI230. Credit only granted for: BSCI230 or BSCI330. Formerly: BSCI230.

Biochemical and physiological mechanisms underlying cellular function. Properties of cells which make life possible and mechanisms by which cells provide energy, reproduce, and regulate and integrate with each other and their environment.

(Sponsoring Dept: BIOL). Specialization Areas: PHNB, CEBG, MICB, ECEV, and GENB. Students must pay a $40.00 laboratory materials fee.

0101	Beth Parent, Carmen Cantemir-Stone MWF 10:00am - 10:50am M 11:00am - 1:50pm	Seats (Total: 24) BRB 1101 BPS 0207	Lab
0102	Beth Parent, Carmen Cantemir-Stone MWF 10:00am - 10:50am M 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0207	Lab
0104	Beth Parent, Carmen Cantemir-Stone MWF 10:00am - 10:50am Tu 9:30am - 12:20pm	Seats (Total: 24) BRB 1101 BPS 0207	Lab
0106	Beth Parent, Carmen Cantemir-Stone MWF 10:00am - 10:50am Tu 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0207	Lab
0107	Carmen Cantemir-Stone, Beth Parent MWF 10:00am - 10:50am W 11:00am - 1:50pm	Seats (Total: 24) BRB 1101 BPS 0207	Lab
0108	Carmen Cantemir-Stone, Beth Parent MWF 10:00am - 10:50am W 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0207	Lab
0110	Beth Parent, Carmen Cantemir-Stone MWF 10:00am - 10:50am Th 11:00am - 1:50pm	Seats (Total: 24) BRB 1101 BPS 0207	Lab
0111	Carmen Cantemir-Stone, Beth Parent MWF 10:00am - 10:50am Th 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0207	Lab
1101	Carmen Cantemir-Stone, Kenneth Frauwirth TuTh 11:00am - 12:15pm M 9:00am - 11:50am	Seats (Total: 24) ESJ 0224 BPS 0213	Lab
1102	Carmen Cantemir-Stone, Kenneth Frauwirth TuTh 11:00am - 12:15pm M 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0224 BPS 0213	Lab

1103	Carmen Cantemir-Stone, Kenneth Frauwirth TuTh 11:00am - 12:15pm M 6:00pm - 8:50pm	Seats (Total: 24) ESJ 0224 BPS 0213	 Lab
1104	Carmen Cantemir-Stone, Kenneth Frauwirth TuTh 11:00am - 12:15pm Tu 2:30pm - 5:20pm	Seats (Total: 24) ESJ 0224 BPS 0213	 Lab
1105	Kenneth Frauwirth, Carmen Cantemir-Stone TuTh 11:00am - 12:15pm Tu 6:00pm - 8:50pm	Seats (Total: 24) ESJ 0224 BPS 0213	 Lab
1106	Kenneth Frauwirth, Carmen Cantemir-Stone TuTh 11:00am - 12:15pm W 9:00am - 11:50am	Seats (Total: 24) ESJ 0224 BPS 0213	 Lab
1107	Carmen Cantemir-Stone, Kenneth Frauwirth TuTh 11:00am - 12:15pm W 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0224 BPS 0213	 Lab
1108	Kenneth Frauwirth, Carmen Cantemir-Stone TuTh 11:00am - 12:15pm W 6:00pm - 8:50pm	Seats (Total: 24) ESJ 0224 BPS 0213	 Lab
SES1	Elizabeth Read-Connole Tu 6:30pm - 9:30pm Th 6:30pm - 9:30pm *Must be in the Science in the Evening (SIE) Program. Click here for more information.*	Seats (Total: 20) BPS 1238 BPS 0213	 Lab

BSCI334 **Mammalogy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI207. And minimum grade of C- in BSCI160 and BSCI161; or minimum grade of C- in BSCI106.

Introduction to the biology of mammals, including evolution, physiological, and behavioral specializations.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: GENB and ECEV.

0101	Katerina Thompson TuTh 12:30pm - 1:45pm	Seats (Total: 75) ESJ 0215	

BSCI335 **Mammalogy Laboratory**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI160 and BSCI161; or minimum grade of C- in BSCI106. And minimum grade of C- in BSCI207; and must have completed or be concurrently enrolled in BSCI334.

Lab and field techniques for the study of mammals, focusing on their identification, anatomy, histology, spatial distribution, ecology, and behavior.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences specialization areas: ECEV and GENB. Students must pay a $40.00 laboratory materials fee.

0101	Katerina Thompson Tu 2:00pm - 4:50pm	Seats (Total: 20) HJP 2230	Lab
0102	Katerina Thompson W 2:00pm - 4:50pm	Seats (Total: 20) HJP 2230	Lab

BSCI337 **Biology of Insects**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI160 and BSCI161; or BSCI106; or permission of CMNS-Entomology department.

An overview of the biology, evolution and diversity of insects and their relatives. Insect morphology, physiology, behavior and ecology; the impact of insects on humanity and the management of pest insect populations; assembly of an insect collection is required.

(Sponsoring Dept.: ENTM). Specialization Areas: GENB and ECEV. Students must pay a $40.00 laboratory materials fee.

0101	Leo Shapiro TuTh 9:30am - 10:45am Tu 2:00pm - 4:50pm	Seats (Total: 18) PLS 1113 PLS 1161	Lab

0102	Leo Shapiro	Seats (Total: 18)	
	TuTh 9:30am - 10:45am	PLS 1113	
	Th 2:00pm - 4:50pm	PLS 1161	Lab

BSCI338C **Special Topics in Biology; Pathophysiology of Cardiac Disorders**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

Credit cannot be applied to the requirements of any Biological Sciences Major. Prerequisite: BSCI330 This course is designed to apply the basics of science you have already learned to medical disorders of the heart. You will start with the anatomy and physiology of the heart with progression into how alteration s to the system can lead to dysfunction.

SES1	Marie Bergmeyer	Seats (Total: 20)
	F 6:00pm - 8:50pm	ESJ B0322
	Must be in the Science in the Evening (SIE) Program. Click here for more information.	

BSCI338D **Special Topics in Biology; Complexity of Cancer**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept.: BIOL).

Contact department for information to register for this course.

BSCI338F **Special Topics in Biology; iGEM Research Seminar**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept.: BIOL). Restriction: Permission of instructor. Also offered as BIOE389F. Credit grandted for BSCI338F or BIOE389F. This course is open to iGEM team members to develop a synthetic biology research project for the internatial Genetically Engineered Machines competition.

0101	Jason Kahn, Edward Eisenstein	Seats (Total: 30)
	Th 3:00pm - 4:50pm	BPS 1232

BSCI338I **Special Topics in Biology; Medical Biotechnology & Drug Development**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept.: BIOL).

Contact department for information to register for this course.

BSCI338J **Special Topics in Biology; Medical Exploration of HIV/AIDS**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept.: BIOL).

Contact department for information to register for this course.

BSCI338L **Special Topics in Biology; Mammalian Systems Physiology**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

PDS1	Satish Gupta	Seats (Total: 25)
	W 6:00pm - 9:00pm	ONLINE
	Must be in the Science in the Evening (SIE) Program. Prerequisite: BSCI330	

BSCI338M **Special Topics in Biology; Human Health and Disease: A Clinical Approach**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept.: BIOL).

Contact department for information to register for this course.

BSCI338N **Special Topics in Biology; Hormones and Behavior**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

Prerequisite: C- or better in BSCI330, NEUR200, or PSYC202. (Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: ECEV, GENB (Cell Biology category), and PHNB. Cross-listing with PSYC489G. Credit only granted for BSCI338N or PSYC489G. A comprehensive overview of the field of behavioral endocrinology, the study of the relationship between hormones and behavior, from a psychobiological perspective. Examine the major mammalian endocrine systems, how hormones influence sex determination, how hormones underlie sex differences in brain structure and function, the role of hormones in parental and social behaviors, mood disorders, homeostasis, cognition, and stress. Both normal and abnormal hormonal pathologies will be discussed. Due to the physiological and experimental perspectives, much of the phenomenology will be based on research in species other than humans. This species comparative approach will reveal interesting "ways of doing things" that are intriguingly different from how "humans do things."

0101	Mary Ann Rankin	Seats (Total: 45)
	MWF 10:00am - 10:50am	HJP 2242

BSCI338Z **Special Topics in Biology; Field Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept: BIOL). Cannot be used as credit toward the major requirements for any Biological Sciences major. Contact the Biology Department Undergraduate Office for course information.

Contact department for information to register for this course.

BSCI339C **Selected Topics in Biology; Cell Biology Lab**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, and other selected instruction courses in various biological subject matter.

(Sponsoring Dept.: BIOL). Credit will be granted for BSCI330 or BSCI339C. Students must pay the $40.00 laboratory materials fee.

Contact department for information to register for this course.

BSCI339E **Selected Topics in Biology; Developmental Genetics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, and other selected instruction courses in various biological subject matter.

(Sponsoring Dept.): BIOL. Applicable towards Biological Sciences Specialization Areas: CEBG and GENB. Prerequisites: C- or better in BSCI222 and BSCI430. Focus is placed on the structure, expression, and regulation of genes controlling plant and animal development.

0101	William Jeffery Tu 2:00pm - 4:30pm	Seats (Total: 7) BPS 2249

BSCI339Y **Selected Topics in Biology; Invertebrate Behavioral Physiology Research Seminar**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, and other selected instruction courses in various biological subject matter.

Contact department for information to register for this course.

BSCI339Z **Selected Topics in Biology; Cell Death and Cancer Research Seminar**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, and other selected instruction courses in various biological subject matter.

ESG1	Hadiya Woodham Th 2:00pm - 5:00pm *Registration is restricted to Biological Sciences - Shady Grove majors.*	Seats (Total: 12) BLD4 3305

BSCI343 **Cellular Mechanisms of Aging and Disease**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI330. Credit only granted for: BSCI339I or BSCI343. Formerly: BSCI339I.

Explore how alterations in normal cellular and molecular processes lead to both aging and a variety of non-infectious human diseases currently plaguing our society. Students will read, analyze, and discuss current primary and secondary literature in the field of cell biology and biomedicine.

ESG1	Hadiya Woodham Tu 2:00pm - 3:15pm Class time/details on ELMs *Registration is restricted to Biological Sciences - Shady Grove majors.*	Seats (Total: 20) Location: TBA ONLINE

BSCI348 **Special Topics in Cell Biology and Molecular Genetics**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Presentation and discussion of special subjects in the field of cell biology and molecular genetics. A maximum of three credit hours of BSCI348 may be applied to the BSCI major.

(Sponsoring Dept.: CBMG). May be repeated, but only 3 credits may be applied to major requirements.

Contact department for information to register for this course.

BSCI348A **Special Topics in Cell Biology and Molecular Genetics; Scientific Teaching Internship**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Presentation and discussion of special subjects in the field of cell biology and molecular genetics. A maximum of three credit hours of BSCI348 may be applied to the BSCI major.

(Sponsoring Dept.: CBMG). Students will act as Undergraduate Teaching Assistants for BSCI223. Prerequisite: A or B in BSCI223 and permission of instructor. Student must be available for one of the BSCI223 lab periods. Students interested in this teaching/leadership opportunity should contact Dr. John Buchner for application information: JBuchner@umd.edu. This course is applicable for the Enrichment credits required of all Biological Sciences students in majors with 0404 codes. For others this is elective credit.

0101	John Buchner	Seats (Total: 22)
	Contact instructor or department for details.	
	Contact instructor or department for details.	

BSCI348I **Special Topics in Cell Biology and Molecular Genetics; Infectious Disease Process**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Presentation and discussion of special subjects in the field of cell biology and molecular genetics. A maximum of three credit hours of BSCI348 may be applied to the BSCI major.

PDS1	Volker Briken	Seats (Total: 10)
	F 5:00pm - 8:00pm	ONLINE
	Must be in the Science in the Evening (SIE) Program. Click here for more information.	

BSCI348R **Special Topics in Cell Biology and Molecular Genetics; Microbiology Internship**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Presentation and discussion of special subjects in the field of cell biology and molecular genetics. A maximum of three credit hours of BSCI348 may be applied to the BSCI major.

(Sponsoring Dept.: CBMG). This course is an opportunity for students interested in microbiology to pursue a research project in an off-campus lab. The student must see the instructor and complete an information sheet found on the web site, prior to enrolling in the course.

0101	Najib El-Sayed Contact instructor or department for details.	Seats (Total: 10)

BSCI353 **Principles of Neuroscience**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (BSCI207, BSCI330). Corequisite: PHYS122, PHYS142, or PHYS132.

Principles of nervous system function, ranging from molecular and cellular basis of neuron function through nervous system integration.

(Sponsoring Dept: BIOL). Acceptable toward Biological Sciences specialization areas: CEBG, GENB, and PHNB.

0101	Chan Lin MWF 9:00am - 9:50am	Seats (Total: 75) BPS 1243
0102	Daniel Butts TuTh 12:30pm - 1:45pm	Seats (Total: 75) ESJ 2204
ESG1	David Sandstrom MW 12:00pm - 1:15pm *Registration is restricted to Biological Sciences - Shady Grove majors.*	Seats (Total: 50) BLD4 4335

BSCI360 **Principles of Animal Behavior**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI160 and BSCI161; or BSCI106. And BSCI170 and BSCI171; or BSCI105. And BSCI222.

Study of animal behavior with emphasis on its evolution and function. Topics include genetic basis of behavior, communication, aggression, foraging, cooperation, mate selection, and relevance for conservation.

(Sponsoring Dept: BIOL). Acceptable toward Biological Sciences specialization areas: ECEV, GENB, and PHNB.

0101	Gerald Borgia MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 20) ONLINE PLS 1119	Discussion
0102	Gerald Borgia MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 20) ONLINE PLS 1119	Discussion

BSCI361 **Principles of Ecology**

Credits: 4 Grading Method: Regular, Pass-Fail

Prerequisite: BSCI160 and BSCI161; or BSCI106. And (MATH130, MATH136, or MATH140).

Basic principles of population, community, and ecosystem ecology. Use of these principles to predict possible consequences of human-caused changes in the environment and to understand the level of uncertainty of those predictions.

(Sponsoring Dep.: ENTM). Acceptable toward Biological Sciences Specialization Areas: ECEV and GENB.

0101	Daniel Gruner TuTh 9:30am - 10:45am W 1:00pm - 1:50pm	Seats (Total: 25) PLS 1130 PLS 1115	Discussion
0102	Daniel Gruner TuTh 9:30am - 10:45am W 2:00pm - 2:50pm	Seats (Total: 25) PLS 1130 PLS 1115	Discussion

BSCI370 **Principles of Evolution**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI160, BSCI161, and BSCI222 .

Understanding evolutionary processes in a natural and human environment, including adaptation; DNA sequence, protein, and genome evolution; evolution of developmental mechanisms; mechanisms of evolutionary change (mutation, natural selection, drift); epidemiology; coevolution and biological control; speciation; comparative methods; extinction and conservation; human evolution.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: PHNB, GENB, and ECEV.

0101	Gerald Borgia	Seats (Total: 85)
	TuTh 9:30am - 10:45am	ONLINE

BSCI378H **Cell Biology and Molecular Genetics Department Honors Seminar**

Credits: 1 Grading Method: Regular, Pass-Fail

Required seminar for all students participating in departmental honors research program.

(Sponsoring Dept.: CBMG). Corequisite: BSCI379H. Restricted to students participating in the CBMG Departmental Honors Program.

Click here for more course information.

0101	Zhongchi Liu	Seats (Total: 23)
	F 2:00pm - 2:50pm	BRB 3101

BSCI379G **Cell Biology and Molecular Genetics Department Research; Research in Cell Biology and Molecular Genetics**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

This course is arranged to provide qualified majors an opportunity to pursue research problems under the supervision of a faculty member of the department.

Prequisite: permission of department. See CBMG department Undergraduate office. (Sponsoring Dept: CBMG).

Contact department for information to register for this course.

BSCI379H **Cell Biology and Molecular Genetics Department Honors Research**

(Perm req)

Credits: 1-3 Grading Method: Regular

Student should consult program guidelines. Research project carried out under guidance of faculty advisor.

Corequisite: BSCI378H. Restricted to students participating in the CBMG Departmental Honors Program. (Sponsoring Dept.: CBMG).

Click here for more course information.

Contact department for information to register for this course.

BSCI379L **Cell Biology and Molecular Genetics Department Research; Lab Research**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

This course is arranged to provide qualified majors an opportunity to pursue research problems under the supervision of a faculty member of the department.

Any combination of 3 credits of BSCI379G, BSCI379L, and BSCI379H can be used to satisfy the enrichment requirement in CEBG, ECEV, MICB, or PHNB or an upper-level elective in GENB. Students must have successfully completed at least one semester in a Cell Biology & Molecular Genetics department research lab before getting permission to take BSCI379L in the same lab. Students completing at least 4 credits of laboratory research including at least one semester taking BSCI379L may substitute this experience for one of the two upper-level laboratory courses required to complete any BSCI major.

Contact department for information to register for this course.

BSCI389 **Entomology Department Research**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Credit to be determined by the department. A maximum of 8 credits of any version of BSCI389 can be applied to one or more undergraduate degrees. Any research credits completed beyond the first 8 will be included in the total earned credits and factored into the GPA but not applied to any undergraduate degree.

(Sponsoring Dept.: ENTM).

Contact department for information to register for this course.

BSCI389H **Entomology Department Research; Honors Research**

(Perm req)

Credits: 1-3

Grading Method: Regular

Credit to be determined by the department. A maximum of 8 credits of any version of BSCI389 can be applied to one or more undergraduate degrees. Any research credits completed beyond the first 8 will be included in the total earned credits and factored into the GPA but not applied to any undergraduate degree.

(Sponsoring Dept.: ENTM).

Contact department for information to register for this course.

BSCI389L **Entomology Department Research; Lab Research**

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Credit to be determined by the department. A maximum of 8 credits of any version of BSCI389 can be applied to one or more undergraduate degrees. Any research credits completed beyond the first 8 will be included in the total earned credits and factored into the GPA but not applied to any undergraduate degree.

Contact department for information to register for this course.

BSCI392 **Biology of Extinct Animals**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI160 and BSCI161; or BSCI106. Cross-listed with: GEOL391. Credit only granted for: GEOL391 or BSCI392.

A survey of extinct animals that have few, if any, direct living descendants. The principles governing the functional design of animals will be used to infer life styles for extinct, and frequently bizarre, organisms.

(Sponsoring Dept.: ENTM).

0101	John Merck	Seats (Total: 65)	
	MWF 10:00am - 10:50am	PLS 1130	

BSCI393 **Biology of Extinct Animals Laboratory**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in BSCI392. Cross-listed with: GEOL392. Credit only granted for: GEOL392 or BSCI393.

An overview of the techniques used in paleobiological reconstructions of extinct animals.

(Sponsoring Dept.: ENTM).

0101	John Merck	Seats (Total: 24)	
	W 2:00pm - 4:50pm	PLS 1161	Lab

BSCI398H **Biology Department Honors Seminar**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Required seminar for all students participating in departmental honors research program.

(Sponsoring Dept.: BIOL). Prerequisite: permission of department.

0101	Alexandra Bely	Seats (Total: 35)
	M 4:00pm - 4:50pm	BPS 1208

BSCI399 **Biology Department Research; Biology Department Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Research and/or integrated reading in biology under the direction and close supervision of a member of the faculty.

(Sponsoring Dept: BIOL)

Contact department for information to register for this course.

BSCI399H **Biology Department Honors Research**

(Perm req)

Credits: 1-2 Grading Method: Regular

A laboratory research problem; required each semester during honors participation and culminating in an honors thesis.

(Sponsoring Dept: BIOL).

Contact department for information to register for this course.

BSCI399L **Biology Department Research; Biology Lab Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Research and/or integrated reading in biology under the direction and close supervision of a member of the faculty.

Contact department for information to register for this course.

BSCI400 **Animal Diversity and Evolution**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: C- or better in BSCI160 and BSCI207.

This course focuses on deep-level diversity of animals and their evolutionary relationships, unique and repeated transitions in the course of animal evolution, and the evolutionary mechanisms that have shaped and continue to shape animal diversity. The course takes an integrative organismal approach to understanding animal evolution, considering morphology, development, physiology, life history, and ecology. It also explores how patterns of animal diversity have changed through time and the processes affecting animal diversity in our changing world.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: ECEV and GENB (Ecology, Behavioral & Organismal category).

0101	Alexandra Bely	Seats (Total: 30)
	MW 11:00am - 11:50am F 11:00am - 11:50am	BPS 1228 BPS 1208

BSCI401 **Animal Communication**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI160 and BSCI161; or BSCI106. And must have completed one semester of physics; and must have completed one semester of organic chemistry. Recommended: A course in animal behavior or biopsychology. Credit only granted for: BSCI401, BSCI338W or BIOL708W. Formerly: BSCI338W.

Examining the mechanisms by which animal produce and receive signals in each sensory modality; and quantifying the type and amount of information conveyed in signals and how animals attend to such information.

(Sponsoring Dept.: BIOL). Applicable toward Biological Sciences specialization areas: ECEV, GENB, and PHNB.

0101	Gerald Wilkinson	Seats (Total: 36)
	TuTh 3:30pm - 4:45pm	ESJ B0320

BSCI403 **Biology of Vision**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI207. Recommended: BSCI222. Credit only granted for: BSCI338V or BSCI403. Formerly: BSCI338V.

An upper level undergraduate course on the physical, molecular, and neural basis of vision.

(Sponsoring Dept: BIOL). Acceptable toward Biological Sciences specialization areas: ECEV, GENB (Ecology, Behavioral & Organismal category), and PHNB.

0101	Jeffrey Diamond	Seats (Total: 30)
	MW 5:00pm - 6:15pm	PLS 1111

BSCI406 **Membranes and Biological Interfaces**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI330. Recommended: PHYS122; or PHYS132; or (PHYS260 and PHYS261). Credit only granted for: BSCI339R, BSCI406, or BIOL709R. Formerly: BSCI339R.

An interdisciplinary approach to membrane biology, starting with the physical chemistry of interfaces and model systems and continuing into transport, excitability, and signaling. The course is oriented toward students with broad backgrounds in biology and biophysics. Success in the course will come from a background that prepares students to think mechanistically and quantitatively rather than having substantial factual biological knowledge.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: CEBG (Cell Biology category), GENB (Cell Biology) and PHNB

0101	Sergei Sukharev	Seats (Total: 14)
	TuTh 3:30pm - 4:45pm	PLS 1111

BSCI407 Behavioral Genetics

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI222.

Behavior represents an organism's most dynamic phenotype and allows an animal to respond immediately to both internal and external cues. We will explore the genetic and epigenetic mechanisms that underlie behavioral variation and the associated neurological, hormonal, and developmental pathways. We will examine modern approaches used to study behavioral genetics in model and non-model systems, and in humans. Using case studies, we will explore a range of complex phenotypes including those related to mating, parental care, aggression, circadian rhythm, locomotion, learning, anxiety, and addiction.

Please add the following course note: (Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences specialization areas: CEBG (Genetics), ECEV, GENB (Genetics & Evolution), and PHNB.

0101	Heidi Fisher	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	BPS 1228

BSCI410 Molecular Genetics

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI222. And must have completed CHEM233; or (CHEM231 and CHEM232).

An advanced genetics course emphasizing the molecular basis of gene structure and function in the context of modern approaches to the genetics of humans and model organisms.

(Sponsoring Dept.: CBMG). Acceptable toward Biological Sciences specialization areas: PHNB, CEBG, GENB and ECEV.

0101	Zhongchi Liu TuTh 11:00am - 12:15pm	Seats (Total: 110) HJP 0226	
0102	Louisa Wu TuTh 9:30am - 10:45am	Seats (Total: 80) MCB 1207	

BSCI412 **Microbial Genetics**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI222; and (BSCI223 or BSCI283).

A laboratory/lecture based course that covers the fundamentals of mutation, mobile genetic elements and transmission genetics of microbial organisms using both classical and molecular approaches.

(Sponsoring Dept: CBMG). Acceptable toward Biological Sciences Specialization Areas: MICB, CEBG, and GENB. Students must pay a $40.00 laboratory materials fee.

0101	Vincent Lee, Erin Tran TuTh 12:30pm - 1:20pm TuTh 1:30pm - 4:30pm	Seats (Total: 18) MCB 1207 MCB 1143	 Lab
0103	Vincent Lee, Erin Tran TuTh 12:30pm - 1:20pm TuTh 1:30pm - 4:30pm	Seats (Total: 18) MCB 1207 MCB 1138	 Lab

BSCI413 **Recombinant DNA**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI330, BSCI223, or BSCI230; and BSCI222. Formerly: ZOOL452.

An advanced course presenting the tools and procedures of genetic engineering. Theory and practical applications of recombinant DNA techniques to understanding eukaryotic gene structure and expression.

(Sponsoring Dept.: CBMG).

Contact department for information to register for this course.

BSCI414 **Recombinant DNA Laboratory**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI222.

An advanced course offering hands-on experience in performing recombinant DNA experiments. All current molecular biology techniques used for cloning prokaryotic genes, analyzing the gene products, and modifying the genes will be performed. Techniques include isolation of DNA, use of restriction enzymes; cloning procedures, PCR analysis, and Southern hybridizations. Lecture material focuses on interpretation of results generated in the laboratory.

ESG1	Nidhi Verma	Seats (Total: 20)	
	F 12:00pm - 3:00pm	BLD4 5322	Lab
	Registration is restricted to Biological Sciences - Shady Grove majors.		

BSCI416 Human Genetics

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Prerequisite: Minimum grade of C- in BSCI410. Recommended: BSCI330.

Approaches to human genetics and applications to biology and medicine focusing on specific human genetic topics using primary research papers as the main resource.

(Sponsoring Dept.: CBMG).

0101	John Moult, Stephen Mount	Seats (Total: 48)
	MW 3:30pm - 4:45pm	ESJ 2309

BSCI417 Microbial Pathogenesis

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: CS | General Education: DSSP

Prerequisite: BSCI222; and (BSCI223 or BSCI283). Restriction: Junior standing or higher.

Current research in microbial pathogenesis and the molecular and cellular basis of bacterial disease. Comprehensive overview of the molecular basis of pathogenesis with a focus on model microbial systems to illustrate mechanisms of disease pathogenesis. Topics covered: how microorganisms attach to and enter cells; how host cells are damaged by microbial products; how the host responds to invasion; and host-pathogen evolution.

(Sponsoring Dept.: CBMG).

0101	Kevin McIver	Seats (Total: 30)
	TuTh 9:30am - 10:45am	JMZ 2123

BSCI420 **Cell Biology Lectures**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI330, BSCI222, CHEM231, and CHEM232. Credit only granted for: BSCI420 or BSCI421.

Molecular and biochemical bases of cellular organization and function in eukaryotes.

(Sponsoring Dept.: CBMG). Acceptable toward Biological Sciences Specialization Areas: PHNB, CEBG, and GENB.

0101	Lijuan Du, Sougata Roy TuTh 11:00am - 12:15pm	Seats (Total: 68) MCB 1207	

BSCI422 **Principles of Immunology**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BSCI222. Recommended: BSCI330; and (BSCI223 or BSCI283). Restriction: Junior standing or higher.

The immune system in health and disease. Presentation and analysis of the cellular and molecular processes that comprise the immune system.

(Sponsoring Dept.: CMBG). Acceptable toward Biological Sciences Specialization Areas: PHNB, MICB, CEBG, and GENB. Jointly offered with C BMG699W.

0101	Kenneth Frauwirth, David Mosser MW 12:00pm - 12:50pm Th 12:30pm - 1:20pm	Seats (Total: 25) ESJ 1202 CCC 1111	Discussion
0102	David Mosser, Kenneth Frauwirth MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 25) ESJ 1202 BPS 1234	Discussion
0103	Kenneth Frauwirth, David Mosser MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 25) ESJ 1202 EGR 3114	Discussion
0104	Kenneth Frauwirth, David Mosser MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 25) ESJ 1202 PLS 1113	Discussion

BSCI423 **Immunology Laboratory**

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: BSCI222. Corequisite: BSCI422. Recommended: BSCI223 or BSCI283. Restriction: Junior standing or higher.

Current techniques for assessment of immune status and evaluation of the immune response, including monoclonal antibody production, Western blotting, cytokine assays, ELISA and flow cytometry.

(Sponsoring Dept.: CBMG). Acceptable toward Biological Sciences Specialization Areas:PHNB, MICB, CEBG and GENB. Students must pay a $40.00 laboratory materials fee.

0101	Wenxia Song MW 2:00pm - 3:50pm	Seats (Total: 18) MCB 1143	Lab
0102	Wenxia Song MW 1:00pm - 2:50pm	Seats (Total: 18) MCB 1135	Lab

BSCI424 **Pathogenic Microbiology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI223 or BSCI283.

The role of bacteria and fungi in the diseases of humans with emphasis upon the differentiation and culture of microorganisms, types of disease, modes of disease transmission, prophylactic, therapeutic, and epidemiological aspects.

(Sponsoring Dept.: CBMG) Acceptable toward Biological Sciences Program Specialization Areas: MICB, and GENB.

Contact department for information to register for this course.

BSCI425 **Advanced Cell Biology Lab Practices**

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: Must have completed BSCI330, BSCI222, CHEM231, and CHEM232; and must have completed or be concurrently enrolled in BSCI420. Credit only granted for: BSCI421, BSCI425, or BSCI348C.

Experimental techniques used to study the molecular, structural, and spatial organization of plant and animal cells. Using a combination of in vitro assays aimed at analyzing macromolecular and subcellular components and in vivo analyses designed to reveal the inner architecture of a typical eukaryotic cell, students will have an opportunity to: improve some of the basic technical and conceptual skills they acquired in an introductory cell biology course; develop a more sophisticated understanding of the nature of experimental cell manipulation; and tackle the ongoing challenge of articulating their findings in both written and oral communication.

0101	Kan Cao	Seats (Total: 18)	
	W 1:00pm - 4:50pm	PLS 1171	Lab

BSCI430 **Developmental Biology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI222 and BSCI330.

Structural, functional and regulatory events and mechanisms that operate during development to produce an integrated, multicellular organism composed of a multitude of differentiated cell types.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: CEBG(Cell Biology), ECEV, GENB (Cell Biology, Development, Physiology) and PHNB

0101	Caitlin Fox	Seats (Total: 36)
	MW 3:30pm - 4:45pm	BPS 0283

BSCI431 **The Origin and Evolution of Nervous Systems**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in NEUR200, BSCI353 or NEUR306.

Explore how brains change through evolution along the animal tree of life. By comparing the nervous system structure and development across the animal kingdom, this course aims to reveal common designs and mechanisms that generate behavior, and to inform our understanding of how biology builds minds. Topics include the origins of neurons, the universal molecular patterning of brain development across invertebrates and vertebrates, the evolution of neurotransmission, comparative mechanisms of learning and memory, and what in our brain makes us human.

(Sponsoring Dept: BIOL). Acceptable toward Biological Sciences specialization areas: ECEV, GENB (Cell Biology category), and PHNB.

0101	Chan Lin	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	BPS 1228

BSCI433 **Biology of Cancer**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI222 and BSCI330; or permission of CMNS-Biological Sciences UG Program.

Causes and consequences of neoplastic transformations at the biochemical and cellular levels.

(Sponsoring Dept.: BIOL). Acceptable towards Biological Sciences Specialization Areas: PHNB, CEBG, and GENB.

0101	Carmen Cantemir-Stone MWF 9:00am - 9:50am	Seats (Total: 100) BPS 1250
SES1	Beth Parent Tu 6:00pm - 9:00pm	Seats (Total: 30) PLS 1111
	Must be in the Science in the Evening (SIE) Program. Click here for more information.	

BSCI437 **General Virology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI222; or permission of CMNS-Biological Sciences UG Program. Restriction: Junior standing or higher.

Discussion of the physical and chemical nature of viruses, virus cultivation and assay methods, virus replication, viral diseases with emphasis on the oncogenic viruses, viral genetics, and characteristics of the major virus groups.

(Sponsoring Dept.: CBMG). Specialization Areas: MICB, CEBG, and GENB.

0101	Jeffrey DeStefano MWF 11:00am - 11:50am	Seats (Total: 60) MCB 1207
ESG1	Gilad Ofek MW 10:00am - 11:15am	Seats (Total: 20) BLD4 4321
	Registration is restricted to Biological Sciences - Shady Grove majors.	

BSCI440 **Mammalian Physiology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI330; and (CHEM231 and CHEM232; or must have completed CHEM233). Or permission of CMNS-Biological Sciences UG Program.

A study of the cardiovascular, hemopoietic, gastrointestinal, renal and respiratory systems. Chemical and endocrine regulation of physiological functions in mammals. Course does not count as an upper level lab for BIOL majors (see BSCI441).

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: PHNB, and GENB.

0101	Justicia Opoku-Edusei MWF 9:00am - 9:50am M 12:00pm - 1:50pm	Seats (Total: 30) ESJ 0224 PLS 1111	 Discussion
0102	Justicia Opoku-Edusei MWF 9:00am - 9:50am Tu 12:30pm - 2:20pm	Seats (Total: 30) ESJ 0224 PLS 1111	 Discussion
0103	Justicia Opoku-Edusei MWF 9:00am - 9:50am W 10:00am - 11:50am	Seats (Total: 30) ESJ 0224 PLS 1111	 Discussion
0104	Justicia Opoku-Edusei MWF 9:00am - 9:50am F 2:00pm - 3:50pm	Seats (Total: 30) ESJ 0224 PLS 1111	 Discussion
0105	Justicia Opoku-Edusei MWF 9:00am - 9:50am M 12:00pm - 1:50pm	Seats (Total: 30) ESJ 0224 PLS 1113	 Discussion
0106	Justicia Opoku-Edusei MWF 9:00am - 9:50am M 2:00pm - 3:50pm	Seats (Total: 30) ESJ 0224 PLS 1113	 Discussion
0107	Justicia Opoku-Edusei MWF 9:00am - 9:50am Tu 2:00pm - 3:50pm	Seats (Total: 30) ESJ 0224 PLS 1113	 Discussion
0108	Justicia Opoku-Edusei MWF 9:00am - 9:50am W 12:00pm - 1:50pm	Seats (Total: 30) ESJ 0224 PLS 1111	 Discussion

BSCI441 Mammalian Physiology Laboratory

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in BSCI440.

Laboratory exercises in experimental mammalian physiology.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Program Specialization Areas: PHNB and GENB. Students must pay a $40.00 laboratory materials fee.

0101	Carmen Cantemir-Stone M 11:00am - 11:50am M 2:00pm - 5:50pm	Seats (Total: 20) BPS 1243 PLS 1181	Lab
0102	Carmen Cantemir-Stone M 11:00am - 11:50am Tu 2:00pm - 5:50pm	Seats (Total: 20) BPS 1243 PLS 1181	Lab
0103	Carmen Cantemir-Stone M 11:00am - 11:50am W 2:00pm - 5:50pm	Seats (Total: 20) BPS 1243 PLS 1181	Lab

BSCI442 **Plant Physiology**

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI170 and BSCI171; or BSCI105; or PLSC201. And CHEM231 and CHEM232; or CHEM237; . Cross-listed with: PLSC400. Credit only granted for: BSCI442 or PLSC400.

An in-depth examination of the unique molecular and physiological principles necessary to understand how plants grow and respond to the environment at the cellular and organismal levels. Plants evolved unique metabolism and survival strategies, so students should be prepared to enter a world that may be new to them.

(Sponsoring Dept.: BSCI) Students must pay a $40.00 laboratory materials fee.

0101	Angus Murphy, Jose Feijo MWF 1:00pm - 1:50pm Tu 9:00am - 12:00pm	Seats (Total: 24) PLS 1140 PLS 1153	Lab
0102	Jose Feijo, Angus Murphy MWF 1:00pm - 1:50pm Tu 4:30pm - 7:30pm	Seats (Total: 24) PLS 1140 PLS 1153	Lab

BSCI446 **Neural Systems**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI330 and BSCI353.

Neural development, followed by sensory, motor and integrative system organization in the central nervous system.

(Sponsoring Dept.: BIOL) Acceptable toward Biological Sciences Program Specialization Areas: PHNB, and GENB.

0101	Ricardo Araneda	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	PLS 1119

BSCI447 **General Endocrinology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI330, CHEM241, and CHEM242.

Functions and dysfunctions of the endocrine system with special reference to mammals.

(Sponsoring Dept.: ENTM). Acceptable toward Biological Sciences Program Specialization Areas: PHNB, and GENB.

0101	Tammatha O'Brien	Seats (Total: 70)
	TuTh 11:00am - 12:15pm	PLS 1140

BSCI454 **Neurobiology Laboratory**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in BSCI330; must have completed or be concurrently enrolled in BSCI353; and must have completed or be concurrently enrolled in PHYS122, PHYS132, or PHYS142. Credit only granted for: BSCI454, BSCI455, NEUR405, or PSYC401.

Basic neuroanatomical techniques, intracellular and extracellular recordings of electrical potentials from nerve and muscle.

(Sponsoring Dept.: BIOL). Specialization areas: CEBG, PHNB, and GENB. Students must pay a $40.00 laboratory materials fee.

ESG1	David Sandstrom Tu 2:00pm - 4:50pm	Seats (Total: 16) BLD4 5322	Lab
	Registration is restricted to Biological Sciences - Shady Grove majors.		
ESG2	David Sandstrom Th 2:00pm - 4:50pm	Seats (Total: 16) BLD4 5322	Lab
	Registration is restricted to Biological Sciences - Shady Grove majors.		

BSCI455 **Neuroscience Laboratory**

Credits: 3 Grading Method: Regular

Prerequisite: NEUR306 or BSCI353; and PHYS132. Recommended: NEUR305. Cross-listed with: NEUR405. Credit only granted for: PSYC401, NEUR405, BSCI455 or BSCI454.

Students will utilize neurophysiological techniques to examine fundamental principles of neurons and neural circuits. This course will reinforce content from prerequisite NEUR courses. Students will also strengthen skills in experimental design and scientific writing.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: CEBG (Cell Biology), GENB (Cell Biology, Development, Physiology), and PHNB. Students must pay a $40.00 lab fee.

0101	Hilary Bierman M 12:00pm - 1:50pm Tu 2:00pm - 6:00pm	Seats (Total: 20) ESJ 2212 BPS 0257	Lab
0102	Hilary Bierman M 12:00pm - 1:50pm W 2:00pm - 6:00pm	Seats (Total: 20) ESJ 2212 BPS 0257	Lab
0103	Hilary Bierman M 12:00pm - 1:50pm Th 2:00pm - 6:00pm	Seats (Total: 20) ESJ 2212 BPS 0257	Lab

BSCI473 **Marine Ecology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI207.

Courses in evolution and animal behavior are strongly recommended. A detailed analysis of the evolutionary ecology of marine invertebrates; emphasis on testing of theories and on current literature.

(Sponsoring Dept: BIOL). Acceptable toward Biological Sciences specialization areas: ECEV and GENB.

0101	Marjorie Reaka	Seats (Total: 45)
	TuTh 12:30pm - 1:45pm	BPS 0283

BSCI476 **Evolutionary Genomics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: C- or better in BSCI222. Recommended: BSCI370.

Application of genomics to understanding evolutionary processes, including genome evolution, organismal evolution, genomic diversity across the tree of life, human evolution and disease. Relevant concepts of evolutionary genetics and genome biology will be covered.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: ECEV and GENB (Ecology, Behavioral & Organismal category).

0101	Carlos Machado	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	PLS 1115

BSCI477 **Ecology and Evolution of Infectious Disease**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: C- or better in BSCI160 and either MATH136 or MATH140. Recommended: BSCI361.

Parasites are a ubiquitous feature of ecological communities, and can strongly impact population growth, extinction risk, community structure and biodiversity, as well as pose serious risks to human health and food security. This course will cover basic principles of disease ecology, including; the diversity of parasitic organisms and transmission modes, host and pathogen traits for defense and infection, mathematical models of disease spread, the impacts of disease at different ecological scales, and host-parasite co-evolution. In the latter half of the course we will apply these basic concepts to current real-world problems in disease ecology including emerging infectious diseases in humans, wildlife and agriculture. We will use examples from plants, animals and humans to about an equal degree. This course will have a strong quantitative focus, and completion of the math series is recommended.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: ECEV and GENB (Ecology, Behavioral & Organismal category).

0101	Emily Bruns	Seats (Total: 36)
	TuTh 2:00pm - 3:15pm	BPS 0283

BSCI480 **Arthropod Form and Function**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of CMNS-Entomology (AGNR).

Survey of the morphological, systematic and physiological diversity of the phylum Arthropoda.

0101	Jeffrey Shultz	Seats (Total: 20)	
	MWF 10:00am - 10:50am	PLS 1162	
	M 2:00pm - 5:00pm	PLS 1161	Lab

BSCI487 **IPM: Science-Based Decision Making for Sustainable Pest Management**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI160 and BSCI161. Restriction: Must have earned a minimum of 90 credits. Credit only granted for: BSCI487 or ENTM609.

Long-term global food security requires a sustainable increase in agricultural productivity to ensure the availability and accessibility of safe and nutritious food. Agricultural pests reduce global food production and threaten its sustainability. This course explores sustainable pest management in agroecosystems using the integrated pest management (IPM) paradigm. IPM is an ecosystem-based strategy that focuses on long-term prevention of pests or their damage through a combination of techniques such as biological control, habitat manipulation, modification of cultural practices, and use of resistant varieties. Pesticides are used only after monitoring indicates they are needed according to established guidelines, and treatments are made with the goal of removing only the target organism. Pest control materials are selected and applied in a manner that minimizes risks to human health, beneficial and non-target organisms, and the environment.

(Sponsoring Dept.: ENTM). Acceptable toward Biological Specialization Areas: ECEV and GENB (Ecology, Behavior & Organismal category).

0101	Kelly Hamby	Seats (Total: 12)	
	Tu 8:00am - 10:45am	PLS 1161	
	Th 8:00am - 10:45am	PLS 1161	Lab

BSCV CIVICUS Spring 2022

BSCV182 **Civicus and Service-Learning**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCV191. Restriction: Must be in the Civicus program.

Students will examine domestic societal issues and their national, regional, and local dimensions from political, economic, and policy perspectives. Students will work with local direct service non-profit organizations.

0101	Julie Randolph M 3:00pm - 4:20pm	Seats (Total: 26) ONLINE	
0201	Julie Randolph M 4:30pm - 5:50pm	Seats (Total: 26) SOM 0101	

BSCV302 **Civicus Capstone**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: BSCV301. Restriction: Sophomore standing or higher. Must be in the CIVICUS Program.

Capstone course required for CIVICUS citation. Through a supervised internship, students gain hands-on experience in an area related to civic engagement, which gives students authentic experiences that help them develop hard and soft skills to support their community engagement efforts and their work toward social good.

By permission of instructor.

0101	Kelley Holley W 6:00pm - 6:50pm Class time/details on ELMs	Seats (Total: 25) TWS 1321 ONLINE	 Discussion
0201	Kelley Holley Tu 6:00pm - 6:50pm Class time/details on ELMs	Seats (Total: 25) ASY 3221 ONLINE	 Discussion

BSCV309 **Civicus Seminar**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Review and analysis of contemporary social issues.

Contact department for information to register for this course.

BSCV309C **Civicus Seminar; Diversity and Inclusion**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Review and analysis of contemporary social issues.

An exploration of equity and inclusion in higher education community service learning.

0101	Korey Rothman	Seats (Total: 3)
	Class time/details on ELMs	ONLINE

BSGC Global Communities Spring 2022

BSGC102 **Global Issues**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: IE | General Education: DSHS, DVUP

Prerequisite: BSGC101. Restriction: Must be in Global Communities Living-Learning program.

A survey of some of the major global challenges facing society today, such as human trafficking, nuclear security, and global health. We explore contending approaches to resolving problems, culminating in a major group project.

0101	Gregory Ramsay	Seats (Total: 26)	
	Tu 3:30pm - 4:45pm Th 11:00am - 12:15pm	TWS 0320 DOR 0134	Discussion
0102	Gregory Ramsay	Seats (Total: 24)	
	Tu 3:30pm - 4:45pm Th 2:00pm - 3:15pm	TWS 0320 DOR 0134	Discussion
0103	Gregory Ramsay	Seats (Total: 23)	
	Tu 3:30pm - 4:45pm Th 9:30am - 10:45am	TWS 0320 DOR 0134	Discussion

BSGC398A **BSGC Experiential Learning in Global Communities: Global Service; Alternative Break/International Service**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Experiential learning is an integral element of the Global Communities program. Students will gain an understanding of social issues in marginalized communities, engage in service-learning, and develop an action plan for civic engagement in a diverse global society.

Restriction: Must be in Global Communities Living-Learning program. GC students who receive acceptance into select Alternate Breaks or International Service programs can apply for Global Experience credit by enrolling in BSGC 398A. This course will meet periodically throughout the semester and will require directed readings, reflective writings, and projects related to your Alternative Break/International Service experience.

0101	Natalie Vinski Ibrahim	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

BSGC399 **Topical Investigations in Global Communities**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Variable from 1-3 credits and repeatable up to 6 if content varies.

Restriction: Must be in Global Communities Living-Learning Program.

0101	Virginia Haufler	Seats (Total: 5)
	Contact instructor or department for details.	

BSOS Behavioral and Social Sciences Spring 2022

BSOS233 **Data Science for the Social Sciences**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH115. Restriction: Must be in a major in the College of Behavioral and Social Sciences or the College of Information Studies; or permission of instructor.

An introduction to modern methods of data analysis for social scientists. This course emphasizes teaching students who have no previous coding experience how to analyze data and extract meaning in a social science context. Students will gain critical programming skills and learn inferential thinking through examples and projects with real-world relevance.

0101	Brian Kim	Seats (Total: 50)
	TuTh 3:30pm - 4:45pm	HJP 2242

BSOS248A **Leadership Seminar I; Leadership Seminar I Ambassadors**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

A topics course in the behavioral and social sciences designed to develop student leaders with skills that will address important issues of the college and offers diverse viewpoints intended to challenge common perceptions of leadership, technology programs and communication.

Contact department for information to register for this course.

BSOS248P **Leadership Seminar I; Peer Mentors**

Credits: 1

Grading Method: Regular, Pass-Fail

A topics course in the behavioral and social sciences designed to develop student leaders with skills that will address important issues of the college and offers diverse viewpoints intended to challenge common perceptions of leadership, technology programs and communication.

Contact department for information to register for this course.

BSOS288A **Special Topics in Behavioral and Social Sciences; Neurodiversity in the Workplace**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Introductory special topics course focusing on an interdisciplinary topic related to behavioral and social sciences.

For more information: Contact Nancy Forsythe nforsyt2@umd.edu. Learn about successful strategies for neurodiverse college students to plan career paths while in college. Understand why employers may look to hire neurodiverse employees in their industries. Learn about the university resources available to neurodiverse college students to support a successful pathway through college and into a career. Learn ways to support and advocate for full disability inclusion on campus and in the workplace.

0101	Ann Nancy Forsythe	Seats (Total: 15)
	W 4:00pm - 5:15pm	ONLINE

BSOS288I **Special Topics in Behavioral and Social Sciences; Internship Practicum in the Social Sciences**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

Introductory special topics course focusing on an interdisciplinary topic related to behavioral and social sciences.

Contact department for information to register for this course.

BSOS355 **Social Sciences Internship Practicum**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

General Education: DSSP

Restriction: Must have earned a minimum of 60 credits; and minimum cumulative GPA of 2.5; and must have completed at least 1 semester at UMD. Credit only granted for: BSOS388I or BSOS355. Formerly: BSOS388I.

BSOS 355 is an internship course open to all majors. It will enable students to articulate and apply the scholarship from the discipline related to their specific internship placement into a real-work environment.

0101	Kathryn Hopps	Seats (Total: 40)
	Contact instructor or department for details.	

BSOS358A **Leadership Practicum II; Ambassadors**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

This course puts into practice the advanced skills and elements learned in the seminar series that directly benefit the college.

Contact department for information to register for this course.

BSOS358D **Leadership Practicum II; Leadership Practicum II DSAC**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

This course puts into practice the advanced skills and elements learned in the seminar series that directly benefit the college.

Contact department for information to register for this course.

BSOS358L **Leadership Practicum II; DSAC Officers**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

This course puts into practice the advanced skills and elements learned in the seminar series that directly benefit the college.

Contact department for information to register for this course.

BSOS358P **Leadership Practicum II; Peer Mentors**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

This course puts into practice the advanced skills and elements learned in the seminar series that directly benefit the college.

Contact department for information to register for this course.

BSOS361 **Academic and Career Planning for Transfer Students in the College of Behavioral and Social Sciences**

Credits: 1

Grading Method: Regular, Pass-Fail

Additional information: Intended for first semester transfer students in BSOS majors.

Students will utilize the resources of the Feller Center for Academic and Career Planning and TerrapinSTRONG to explore how their individual social identities and strengths contribute to building strong communities in personal, academic, and professional career spaces.

Restricted to First-Semester BSOS Transfer Students.

0101	Steven Young W 3:00pm - 4:50pm Class time/details on ELMs	Seats (Total: 30) PLS 1119 ONLINE
0102	TC Lloyd M 10:00am - 11:50am Class time/details on ELMs	Seats (Total: 30) HBK 0109 ONLINE

BSOS386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

BSOS388E **Behavioral and Social Sciences Special Topics; CIDCM Minor Practicum**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Advanced special topics course focusing on an interdisciplinary topic related to the Behavioral and Social Sciences.

Contact department for information to register for this course.

BSOS388Q **Behavioral and Social Sciences Special Topics; CESAR Directed Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Advanced special topics course focusing on an interdisciplinary topic related to the Behavioral and Social Sciences.

Contact department for information to register for this course.

BSOS399 **Directed Study in Behavioral and Social Sciences**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Guidance for the advanced student capable of interdisciplinary study on special projects under the supervision of the Assistant Dean for Student Affairs.

Contact department for information to register for this course.

BSOS399C **Directed Study in Behavioral and Social Sciences; Civicus Undergraduate Teaching Assistant Directed Study**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

Guidance for the advanced student capable of interdisciplinary study on special projects under the supervision of the Assistant Dean for Student Affairs.

Contact department for information to register for this course.

BSOS399Q **Directed Study in Behavioral and Social Sciences; CESAR**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Guidance for the advanced student capable of interdisciplinary study on special projects under the supervision of the Assistant Dean for Student Affairs.

Contact department for information to register for this course.

BSOS448C **Teaching Assistant Practicum; Civicus**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

Supervised practicum for teaching assistants for BSOS/UNIV courses.

Contact department for information to register for this course.

BSOS448I **Teaching Assistant Practicum; Internship**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Supervised practicum for teaching assistants for BSOS/UNIV courses.

Contact department for information to register for this course.

BSOS448T **Teaching Assistant Practicum; Teaching Assistant Practicum (UNIV)**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Supervised practicum for teaching assistants for BSOS/UNIV courses.

Contact department for information to register for this course.

BSST Terrorism Studies Spring 2022

BSST331 **Innovations in Counterterrorism**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Terrorism Studies minor program.

Explore the manners in which states respond to terrorist incidents and the threat of terrorism through counterterrorism approaches and strategies. We will examine counterterrorism responses from law enforcement, military, and the intelligence community. This will include discussions about policy decisions made in response to both terrorist attacks and the threat of terrorism. Counterterrorism strategies this course will cover include deterrence, interdiction, and legal efforts to combat terrorism, including terrorist financing and online recruitment. The course is divided into four general parts. First, we will provide an overview of government counterterrorism options and review key concepts. Second, we will examine law enforcement responses to terrorism including efforts to counter cyberterrorism, social media recruitment, and terrorist financing online. Third, we will focus on military responses to attacks conducted by terrorist groups, including deterrence strategies, targeted strikes, and covert operations. Last, we will review the challenges and complexities of counterterrorism approaches, including the ethical, moral, and legal dilemmas.

0101	Thomas Guarrieri	Seats (Total: 40)
	Tu 2:00pm - 4:45pm	TWS 1310
	Restricted to students in the Global Terrorism Minor; for inquiries email education-start@umd.edu.	

BSST338B **Special Topics in Terrorism Studies; Terrorism and Political Violence: Understanding Terrorism, Insurgency, and Civil Conflict**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

A special topics course for students in the Global Terrorism Minor program. Topics that may be offered are Psychology of Terrorism; Development of Counterterrorism Policies and Programs; Terrorism and Popular Culture; Terrorism and the Media; International Perspective on Terrorism and Counterterrorism (Education Abroad); The Evolution of Hezbollah; Terrorism and Small Wars; Political Islam in the West.

BSST338B is cross-listed with CCJS318F. Credit may only be earned for BSST338B or CCJS318F.

ESG1	Steve Sin	Seats (Total: 40)
	M 9:30am - 12:00pm	BLD3 3206
	Restricted to CCJS students at Shady Grove.	

BSST338R **Special Topics in Terrorism Studies; Far-Right Extremism: Violent Ideologies and Actions**

Credits: 3

Grading Method: Regular, Pass-Fail

A special topics course for students in the Global Terrorism Minor program. Topics that may be offered are Psychology of Terrorism; Development of Counterterrorism Policies and Programs; Terrorism and Popular Culture; Terrorism and the Media; International Perspective on Terrorism and Counterterrorism (Education Abroad); The Evolution of Hezbollah; Terrorism and Small Wars; Political Islam in the West.

This course will introduce students to the ideologies, organizing patterns, and actions within far-right extremism. This will include a focus on movements within white supremacism, anti-government extremism, male supremacy, homophobia, and anti-immigrant extremism. Using as examples specific violent extremists and groups on the far right, we will study key theories explaining extremist radicalization, recruitment, engagement, and mobilization.

0101	Elizabeth Yates TuTh 11:00am - 12:15pm	Seats (Total: 20) TYD 2111
0201	Elizabeth Yates TuTh 11:00am - 12:15pm *Restricted to students in the Global Terrorism Minor.*	Seats (Total: 20) TYD 2111

BSST377 **Applying Theory to the Practice of Countering Terrorism**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Recommended: BSST330. Restriction: Restricted to students enrolled in the Global Terrorism Minor (#BS07). Credit only granted for: BSST327, BSST377, or BSST399K. Formerly: BSST327. Additional information: It is recommended that this course be taken in the final semester in the minor program.

Focuses on current events related to terrorism and counterterrorism, as they are discussed in mass media, and the implications of those current events on the ethical and professional conduct of the counterterrorism community. Through a discussion-based seminar, students will bring current, terrorism-related events to classroom discussion, where they will consider the media-framed current events in relation to academic research. Students will be continually challenged to draw connections between terrorism-related events in the news and relevant academic research. Furthermore, this class will use vignettes based in current events to present students with real-world ethical dilemmas that those in the professional counterterrorism community and broader national security community have to confront.

For inquiries, email education-start@umd.edu.

0101	William Braniff Th 2:00pm - 3:40pm	Seats (Total: 35) TWS 1310

BSST386 **Experiential Learning in Terrorism Studies**

(Perm req)

Credits: 1-5 Grading Method: Regular, Pass-Fail

This course will supplement student's experiential learning experience, or internship in the field of terrorism studies and homeland security with guided reflection on their experiences.

0101	Eva Coll	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

BSST389 **Internship in Terrorism Studies**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail

Supplements student's experiential learning experience, or internship in the field of terrorism studies and homeland security, with guided reflection on their experiences.

Supplements student's experiential learning experience, or internship in the field of terrorism studies and homeland security, with guided reflection on their experiences.

Contact department for information to register for this course.

BSST631 **Societal Impacts of and Responses to Terrorism**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in Terrorism Analysis Graduate Certificate Program; or permission of department. Credit only granted for: BSOS631 or BSST631. Formerly: BSOS631.

Explores the manners in which a variety of different actors respond to both terrorist incidents and the threat of terrorism. Examines local responses to terrorist incidents; local impacts of terrorism including effects on individual and group attitudes and behaviors; policy decisions made in response to both terrorist attacks and the threat of terrorism; terrorism prevention, deterrence, interdiction, and mitigation efforts; and individual and community recovery from terrorist attacks.

PWT1	Michael Egnoto	Seats (Total: 35)
	W 6:00pm - 8:30pm	ONLINE
	Must be in the Graduate Programs in Security and Terrorism Studies or a graduate student in a Semester Academic Calendar program.	

BSST633 **Research Methods in Terrorism and Counterterrorism**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: BSOS633 or BSST633. Formerly: BSOS633.

Provides students with the opportunity to conduct original research, while exposing them to analytical tools relevant to the study of terrorism. Students will work with a range of data sources on domestic and international terrorism, and will be tasked with using data to test hypotheses related to the causes, behaviors, and/ or impacts of terrorism.

PWT1	Marcus Boyd	Seats (Total: 30)
	Th 6:00pm - 8:30pm	ONLINE
	Must be in the Graduate Programs in Security and Terrorism Studies or a graduate student in a Semester Academic Calendar program.	

BSST643 **Great Powers & Near-Peer Competition**

Credits: 3 Grading Method: Regular

Focused on the emerging threats posed by state actors termed as "near-peers," including topics germane to near-peer competitors, most notably China, Russia, and Iran, but will cover other state actors as necessary. The course also investigates the past, present, and future of the most powerful states in the international system, the great powers, and how they compete, and cooperate in international relations. By examining the various aspects of the great powers and near-peer competitors, students will learn how geography, politics, economics, technology, and ideology play a role in global competition.

PWT1	Margaret Smith	Seats (Total: 30)
	M 6:00pm - 8:30pm	ONLINE
	Must be in the Graduate Programs in Security and Terrorism Studies or a graduate student in a Semester Academic Calendar program.	

BSST645 **Non-state Actors Threats and Responses**

Credits: 3 Grading Method: Regular, Audit

The Non-State Actor. Running the gamut from Freedom fighters to Corporatized extortionists, NSAs play a pivotal role in the modern fields of combat. Some maintain loose state-level ties with high deniability, others rage against their domestic governments and facilitate foreign influence, but all present a modern adversary that Western Allies and Governments need to anticipate, track, and overcome. This course will provide an overview of the types of non-state actors that influence state actions. The course will examine the economic, political, and social costs of the proliferation of non-state actors globally. While the course will discuss terrorist groups, the main focus of the course will be on actors such as militant groups, insurgent groups, drug cartels, and illicit financial actors.

PWT1	Michael Egnoto	Seats (Total: 30)
	Tu 6:00pm - 8:30pm	ONLINE
	Must be in the Graduate Programs in Security and Terrorism Studies or a graduate student in a Semester Academic Calendar program.	

BUAC Accounting and Information Assurance — Spring 2022

BUAC706 **Business Ethics for Accountants and Auditors**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program. Credit only granted for: BUAC765 or BUAC706. Formerly: BUAC765.

Considers all facets of business ethics issues within an accounting and auditing context. Ethical theory, corporate social responsibility, and individual decision-making are considered. Some of the applied topics that may be covered in this course include, but are not limited to, intellectual property issues, corporate downsizing, outsourcing, global ethics, crises management, and employment ethics.

0501	Jeffrey Milton	Seats (Total: 0)
	Meets January 24, 2022 - March 10, 2022	
	TuTh 12:00pm - 1:50pm	VMH 1333

BUAC714 **Forensic Accounting/Auditing**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUAC792 or BUAC714. Formerly: BUAC792.

Provides a theoretical background and practical application of fraud examinations and corporate investigations. Fraud prevention, detection, investigation, and related matters such as courtroom procedures will be included. Also considered are topics such as FCPA and securities fraud. A wide variety of teaching tools are used.

0501	Ariel Ramirez, David Hilton	Seats (Total: 0)
	Meets March 28, 2022 - May 12, 2022	
	MW 6:00pm - 7:50pm	VMH 1333

BUAC735 **External Auditing**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUAC758O or BUAC735. Formerly: BUAC758O.

The study of the independent accountants attest function, generally accepted auditing standards, compliance and substantive tests, and auditor reports and opinions. The course explores audit planning and the role of internal controls and their effect on the auditability of financial statements. The course includes the study of various audit concepts, including how auditors develop an audit strategy, determine materiality in various contexts, set the acceptable level of audit risk, assess control and inherent risk and set detection risk, develop audit objectives, accumulate audit evidence and prepare workpapers, and audit firm quality control.

0501	James McKinney	Seats (Total: 0)
	Meets January 24, 2022 - March 10, 2022	
	MW 4:00pm - 5:50pm	Location: TBA

BUAC742 **Accounting Analytics**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith.

The application of data analytics techniques in accounting. Topics such as identifying questions that can be answered by data; data extraction, cleaning and preparation; data visualization; audit data analytics; generating key performance indicators; financial statement analytics; and tax analytics will be covered. Students will gain hands-on experience with various data analytics software. By the end of this course, the students should have a basic understanding on how accounting analytics can help enhance the effectiveness of management control systems and improve the quality and relevance of financial reporting, as well as its implications in auditing and fraud detection.

0501	Lei Zhou	Seats (Total: 0)
	Meets January 24, 2022 - March 10, 2022	
	TuTh 10:00am - 11:50am	VMH 1333

BUAC744 **Valuation Measurement, Reporting, and Auditing for Accountants and Auditors**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith.

An introduction to valuation for financial reporting ("fair value"), fair value reporting, and auditing fair value measurements. The number and complexity of financial reporting standards that require or allow assets and liabilities to be reported at fair value has increased substantially in recent years. The technical accounting standards that include fair value are complex in and of themselves, and the valuation measurements add substantially to the complexity. Further complexity is added to the dynamic because the audit firm is prohibited by the AICPA's independence rules from performing the valuation or providing significant assistance in technical accounting or the fair value measurement. Independent valuation/appraisal specialists are frequently preferred or required by the reporting company and/or the audit firm. From the perspective of the reporting company, this frequently results in complex and costly compliance, and from the auditor's perspective, a complex and high-risk area of the audit.

0501	Brent Solomon	Seats (Total: 0)
	Meets January 24, 2022 - March 10, 2022	
	MW 12:00pm - 1:50pm	VMH 1333

BUAC752 **Internal Auditing I: Assurance and Consulting Services**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business. Credit only granted for: BUAC786 or BUAC752. Formerly: BUAC786.

Provides students with an overview and basic understanding of internal auditing. Internal audit's role in internal control, risk management, business processes and risks, and Sarbanes-Oxley, Section 404 compliance efforts compliance efforts are considered. Internal auditing is presented as an integral part of effective corporate governance. Examples of assurance and consulting activities undertaken by the internal audit function, as well as the sourcing strategy (i.e., full insourcing, co-sourcing or full outsourcing models) are discussed. Students are introduced to internal control theory, test design concepts and internal auditing best practices.

0501	Alan Siegfried, Elizabeth Folsom	Seats (Total: 0)
	Meets March 28, 2022 - May 12, 2022	
	TuTh 6:00pm - 7:50pm	VMH 1333

BUAC758F **Special Topics in Accounting and Information Assurance; Intermediate Accounting III**

(Perm req)

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in accounting and information assurance.

0501	Patrick McNamee	Seats (Total: 42)
	Meets January 24, 2022 - March 10, 2022	
	TuTh 4:00pm - 5:50pm	VMH 2511

BUAC758U **Special Topics in Accounting and Information Assurance; Advanced Accounting**

(Perm req)

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in accounting and information assurance.

0501	Samuel Handwerger	Seats (Total: 0)
	Meets March 28, 2022 - May 12, 2022	
	TuTh 4:00pm - 5:50pm	VMH 1333

BUAC759 **Independent Study in Accounting and Information Assurance**

(Perm req)

Credits: 1-6 Grading Method: Regular

Independent study for masters students in accounting and information assurance.

Contact department for information to register for this course.

BUAC766 **Taxation of Not-for-Profit Entities**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUAC758W or BUAC766. Formerly: BUAC758W.

An introduction to the theory and practice of taxation as applied in the nonprofit sector. The practice of taxation for nonprofits requires, inter alia, an understanding of the legal framework for these entities. Therefore, the course will devote significant time to understanding the legal environment and framework associated with nonprofits. The course goal is to enable students to become proficient in the major aspects of nonprofits that apply to the work of public accountants.

0501	Samuel Handwerger	Seats (Total: 0)
	Meets March 28, 2022 - May 12, 2022	
	TuTh 2:00pm - 3:50pm	VMH 1333

BUAC767 **Tax IV: Real Estate Taxation**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUAC758X or BUAC767. Formerly: BUAC758X.

Provides an in-depth examination of the tax provisions and opportunities for planning transactions that involve real estate investments and transactions. The course covers the tax implications of purchasing, holding, and selling real property. These include the determination of tax basis and the treatment of mortgage interest, property taxes, like-kind exchanges, involuntary conversions, sales and dispositions, qualifying property, and capital gains and losses. The various forms used for property transactions will be reviewed in detail.

0501	Jeffrey Milton	Seats (Total: 0)
	Meets March 28, 2022 - May 12, 2022	
	TuTh 12:00pm - 1:50pm	VMH 1333

BUAC770 **Tax V: International Taxation**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUAC758Y or BUAC770. Formerly: BUAC758Y.

An introduction to the theory and practice of international taxation. The objective of the course is to provide students with the basic tools to approach international tax topics from a US perspective. The course addresses the fundamentals of U.S. international taxation, but also offers insight into tax planning considerations. Both the U.S. activities of foreign taxpayers, as well as the foreign activities of U.S. taxpayers are explored.

0501	Samuel Handwerger	Seats (Total: 0)
	Meets January 24, 2022 - March 10, 2022	
	TuTh 2:00pm - 3:50pm	VMH 1333

BUDT Decision and Information Technologies Spring 2022

BUDT723 **Business Process Analysis for IS**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith. Credit only granted for: BUDT758N or BUDT723. Formerly: BUDT758N.

Helps students gain a solid foundation in the concepts, processes, tools, and techniques needed in analyzing business processes and conducting information systems projects.

0501	Sindhu Rajan **Meets January 24, 2022 - May 12, 2022** MW 8:00pm - 9:15pm	Seats (Total: 0) VMH 1330
0502	Sindhu Rajan **Meets January 24, 2022 - May 12, 2022** MW 6:30pm - 7:45pm	Seats (Total: 0) VMH 1330
0503	Sindhu Rajan **Meets January 24, 2022 - May 12, 2022** MW 5:00pm - 6:15pm	Seats (Total: 0) VMH 1330

BUDT724 **Project Management**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith. Credit only granted for: BUSI785, BUDT758C or BUDT724. Formerly: BUDT758C.

Addresses project management skills that are required by successful managers in increasingly competitive and faster-moving environments. Examines fundamental concepts of successful project management, and the technical and managerial issues, methods, and techniques.

0501	Paul Shapiro **Meets January 24, 2022 - March 10, 2022** MW 2:00pm - 3:50pm	Seats (Total: 0) VMH 1511
0502	Paul Shapiro **Meets January 24, 2022 - March 10, 2022** MW 4:00pm - 5:50pm	Seats (Total: 0) VMH 1511
0503	Paul Shapiro **Meets January 24, 2022 - March 10, 2022** MW 12:00pm - 1:50pm	Seats (Total: 0) VMH 1511

BUDT737 **Big Data and Artificial Intelligence for Business**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business. Credit only granted for: BUDT758B or BUDT737. Formerly: BUDT758B.

This course uses a learning-by-doing approach to understand key concepts behind Big Data and AI, the strategic drivers of these technologies and the value propositions that they provide to industry. The course cover technologies within this ecosystem including Hadoop, AWS, Pig, Hive, Amazon Web Services and Spark. Examples of AI using Deep Learning will be presented. The focus is on creating awareness of the technologies, providing some level of familiarity with them through hands-on exercises and projects, and enabling strategic thinking around the use of these technologies in business.

0506	Woei-Jyh Lee **Meets January 24, 2022 - May 12, 2022** MW 12:30pm - 1:45pm	Seats (Total: 0) VMH 1528
0507	Woei-Jyh Lee **Meets January 24, 2022 - May 12, 2022** MW 11:00am - 12:15pm	Seats (Total: 0) VMH 1528

BUDT758D **Special Topics in Decision, Operations and Information Technologies; Data Visualization & Web Analytics**

Credits: 3 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

0501	Lauren Rhue **Meets January 24, 2022 - May 12, 2022** TuTh 5:00pm - 6:15pm	Seats (Total: 65) VMH 1212
0502	Lauren Rhue **Meets January 24, 2022 - May 12, 2022** TuTh 5:00pm - 6:15pm	Seats (Total: 65) VMH 1212
0506	Xiaojia Guo **Meets January 24, 2022 - May 12, 2022** TuTh 9:30am - 10:45am *MSBA only*	Seats (Total: 0) VMH 1330
0507	Xiaojia Guo **Meets January 24, 2022 - May 12, 2022** TuTh 11:00am - 12:15pm	Seats (Total: 0) VMH 1330

BUDT758K **Special Topics in Decision, Operations and Information Technologies; Computer Simulation for Business Applications**

Credits: 3 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

For MS in Information Systems students only.

0501	Sujin Kim **Meets January 24, 2022 - May 12, 2022** TuTh 11:00am - 12:15pm *For MS in Information Systems students only.*	Seats (Total: 40) VMH 2505

BUDT758T **Special Topics in Decision, Operations and Information Technologies; Data Mining and Predictive Analytics**

Credits: 3 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

0501	Jessica Clark **Meets January 24, 2022 - May 12, 2022** TuTh 9:30am - 10:45am	Seats (Total: 50) VMH 1335
0502	Jessica Clark **Meets January 24, 2022 - May 12, 2022** TuTh 12:30pm - 1:45pm	Seats (Total: 50) VMH 1330
0503	Jessica Clark **Meets January 24, 2022 - May 12, 2022** TuTh 2:00pm - 3:15pm	Seats (Total: 50) VMH 1330
0506	Kislaya Prasad **Meets January 24, 2022 - May 12, 2022** MW 3:30pm - 4:45pm	Seats (Total: 0) VMH 1528
0507	Kislaya Prasad **Meets January 24, 2022 - May 12, 2022** MW 5:00pm - 6:15pm	Seats (Total: 0) VMH 1528

BUDT758V **Special Topics in Decision, Operations and Information Technologies; Operations Analytics**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

For MS in Business Analytics students only.

0506	Zhi-Long Chen	Seats (Total: 61)	
	Meets March 28, 2022 - May 12, 2022		
	M 6:25pm - 8:30pm	VMH 1528	
	W 7:00pm - 8:30pm	ONLINE	Lab

BUDT758Z **Special Topics in Decision, Operations and Information Technologies; Computer Simulation for Business Applications**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

0506	Melanie De Grano	Seats (Total: 60)	
	Meets March 28, 2022 - May 12, 2022		
	W 6:25pm - 9:00pm	VMH 1528	
	Th 5:00pm - 6:00pm	ONLINE	Lab

BUFN Finance Spring 2022

Courses with the BUFN prefix are offered only for students in the Master of Finance and Master of Quantitative Finance programs.

BUFN630 **Valuation in Corporate Finance**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: BUFN610. Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)) ; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN630, BUFN714, BUFN750, BUFN753, or BMGT730. Formerly: BUFN750.

An advanced topics course in Corporate Finance dealing with valuation. Main topics will be, building pro forma statements, cost of capital, using ratios and comparables to value projects and firms, dicounted cash flow valuations, WACC and APV methods of valuation and Real Option Valuations.

0501	Liu Yang	Seats (Total: 0)	
	Meets January 24, 2022 - March 10, 2022		
	TuTh 12:00pm - 1:50pm	VMH 1511	

0505	Liu Yang	Seats (Total: 0)
	Meets January 24, 2022 - March 10, 2022	
	TuTh 10:00am - 11:50am	VMH 1511

BUFN660 **Derivative Securities**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: BUFN610. Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)) ; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN660, BUFN726, BUFN761 or BUFN773. Formerly: BUFN761.

Standard types of derivatives contracts are presented, and illustrated as to how they are used in practice. The theory of pricing these contracts is then presented in detail. The use of static and dynamic replication strategies, and the concept of no-arbitrage strategies is illustrated in numerous ways. Standard valuation techniques are covered, and standard formulas are presented. The theory is then applied to develop specific pricing and hedging strategies for various types of derivatives on different underlying assets. The management of the exposure of various risks is covered in detail as well.

0501	Steven Heston	Seats (Total: 0)
	Meets January 24, 2022 - March 10, 2022	
	MW 4:00pm - 5:50pm	VMH 1333
0505	Steven Heston	Seats (Total: 0)
	Meets January 24, 2022 - March 10, 2022	
	MW 10:00am - 11:50am	VMH 1333

BUFN670 **Financial Mathematics**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

Introduction to the mathematical models used in finance and economics with emphasis on pricing derivative instruments. Topics include elements from basic probability theory, distributions of stock returns, elementary stochastic calculus, Ito's Lemma, arbitrage pricing theory, and continuous time portfolio theory. Particular focus is on the financial applications of these mathematical concepts.

0505	Albert Crosby	Seats (Total: 0)
	Meets March 28, 2022 - May 12, 2022	
	TuTh 10:00am - 11:50am	VMH 1333

BUFN710 **Financial Strategy for Corporations**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: BUFN610; or permission of BMGT-Robert H. Smith School of Business. Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUFN751 or BUFN710. Formerly: BUFN751.

An advanced course in corporate finance, focusing on the issues that firms face when they plan to raise external capital from financial markets. The focus is on the financing problems faced by mid-market to large firms and on capital raised from public markets. The forms of external finance vary from simple debt or equity to more complex securities that bundle with an element of risk management.

0501	Pablo Slutzky	Seats (Total: 0)
	Meets March 28, 2022 - May 12, 2022	
	MW 2:00pm - 3:50pm	VMH 1520

BUFN714 **Corporate Governance and Performance**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: BUFN610. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN630, BUFN714, BUFN750, BUFN753, or BMGT730. Formerly: BUFN753.

Deals with corporate governance and its impact on shareholder value. Divergence of interests between corporate insiders and providers of funds leads to agency problems which can impair corporate performance and shareholder value. Various instruments of corporate governance - internal as well as external mechanisms - that can help align managerial incentives with those of outside investors, and hence help restore shareholder value will be studied.

0501	Lemma Senbet	Seats (Total: 0)
	Meets March 28, 2022 - May 12, 2022	
	M 6:25pm - 10:00pm	ONLINE

BUFN717 **Entrepreneurial Finance and Private Equity**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: BUFN610. Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUFN755 or BUFN717. Formerly: BUFN755.

An advanced topics course in Corporate Finance. The major emphasis is how financiers help growing firms - and in particular young start-ups - using different types of securities at different points in the industry's and firm's life. Financing arrangements and securities studied will include private equity funds and private financings placements, Venture Capital (VC) and preferred equity, Investment Banks through Initial Public Offerings (IPOs), Private equity finds, debt and leveraged buyouts. Students will learn additional techniques that will help them understand how financiers value firms and how to understand, plan and value different financing strategies.

0501	Maria Bustamante	Seats (Total: 0)
	Meets March 28, 2022 - May 12, 2022	
	TuTh 12:00pm - 1:50pm	VMH 1336

BUFN726 **Institutional Asset Management**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: BUFN610. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN660, BUFN726, BUFN761 or BUFN773. Formerly: BUFN773.

Examines how money is managed by organizations such as university endowments, pension funds, mutual funds, hedge funds, and private equity funds. Involves a mixture of finance and economics and emphasizes the incentives professional money managers face within the context of the organizational structure in which they operate. Particular attention is paid to compensation structures and monitoring mechanisms.

0501	Albert Kyle	Seats (Total: 0)
	Meets January 24, 2022 - March 10, 2022	
	MW 10:00am - 11:50am	VMH 2505
0502	Albert Kyle	Seats (Total: 0)
	Meets January 24, 2022 - March 10, 2022	
	MW 12:00pm - 1:50pm	VMH 2505

BUFN732 **Fixed Income Analysis**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: BUFN610. Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUFN732 or BUFN762. Formerly: BUFN762.

Describes important financial instruments which have market values that are sensitive to interest rate movements. Develops tools to analyze interest rate sensitivity and value fixed income securities. Defines and explains the vocabulary of the bond management business.

0501	Haluk Unal **Meets March 28, 2022 - May 12, 2022** MW 10:00am - 11:50am	Seats (Total: 0) VMH 1333
0502	Haluk Unal **Meets March 28, 2022 - May 12, 2022** MW 12:00pm - 1:50pm	Seats (Total: 0) VMH 1333

BUFN736 **Quantitative Investment Strategies**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: BUFN610. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUFN764 or BUFN736. Formerly: BUFN764.

Provides an introduction to quantitative techniques of selecting equities, as used commonly among long-short equity hedge funds and other quantitative equity asset management companies. Statistical factor models are developed to locate stocks with higher expected returns, based on the observable characteristics of the stocks. Implementation issues, including statistical estimation, backtesting and portfolio construction, are covered, as is performance evaluation.

0501	Russell Wermers **Meets January 24, 2022 - March 10, 2022** TuTh 4:00pm - 5:50pm	Seats (Total: 0) VMH 1511

BUFN745 **Financial Programming**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: BUFN650. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN758E or BUFN745. Formerly: BUFN758E.

This course introduces basic and innovative statistical modelling methods for financial markets, and equips students with analytical and programming tools for modelling and analyzing financial data. Examples of applications include portfolio management and risk management.

0505	Xi He **Meets January 24, 2022 - March 10, 2022** TuTh 12:00pm - 1:50pm	Seats (Total: 0) VMH 1336
0506	Xi He **Meets January 24, 2022 - March 10, 2022** TuTh 2:00pm - 3:50pm	Seats (Total: 0) VMH 1511

BUFN747 **Asset-Liability and Nonfinancial Risk Management**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: BUSI640; and BUFN740. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

This course surveys risks and techniques associated with asset-liability and nonfinancial risks including market and interest rate risk, liquidity risk, operational risk and model risk, among others. Techniques such as portfolio value-at-risk (VaR) are used in realistic empirical examples to illustrate the methods. Key rate duration, principal components analysis and analytical and simulation-based VaR techniques are used to estimate interest rate risk exposure for financial firms. Hedging these risks using various financial derivative products such as options, swaps and futures contracts is explored. Operational risk is estimated leveraging Poisson loss distributions and model risk and validation techniques are reviewed.

0501	Clifford Rossi **Meets January 24, 2022 - March 10, 2022** MW 2:00pm - 3:50pm	Seats (Total: 0) VMH 2505

BUFN758D **Special Topics in Finance; Big Data in Finance**

(Perm req)

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in finance.

0501	John Roberts **Meets March 28, 2022 - May 12, 2022** W 6:25pm - 10:00pm	Seats (Total: 0) VMH 1520

BUFN758M **Special Topics in Finance; Hedge Fund Management**

(Perm req)

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in finance.

0505	Kenneth Brodkowitz	Seats (Total: 0)
	Meets March 28, 2022 - May 12, 2022	
	TuTh 2:00pm - 3:50pm	VMH 1336

BUFN758X **Special Topics in Finance; Market Microstructure**

(Perm req)

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in finance.

0501	Thomas Ernst	Seats (Total: 0)
	Meets March 28, 2022 - May 12, 2022	
	MW 2:00pm - 3:50pm	VMH 1333

BUFN758Z **Special Topics in Finance; Global Equity Fund**

(Perm req)

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in finance.

0506	Kenneth Fuller	Seats (Total: 45)
	Meets January 24, 2022 - May 12, 2022	
	Tu 6:25pm - 10:00pm	Location: TBA

BUFN759 **Independent Study in Finance**

(Perm req)

Credits: 1-6 Grading Method: Regular

Independent study for Masters students in finance.

By Department Permission Only.

Contact department for information to register for this course.

BUFN768A **Special Topics in Finance; Experiential Learning Project**

(Perm req)

Credits: 1-4 Grading Method: Regular

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN768B **Special Topics in Finance; Experiential Learning Project**

(Perm req) Credits: 1-4 Grading Method: Regular

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN768O **Special Topics in Finance; Experiential Learning Project**

(Perm req) Credits: 1-4 Grading Method: Regular

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN768P **Special Topics in Finance; Experiential Learning Project**

(Perm req) Credits: 1-4 Grading Method: Regular

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN768X **Special Topics in Finance; Experiential Learning Project**

(Perm req) Credits: 1-4 Grading Method: Regular

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN768Y **Special Topics in Finance; Experiential Learning Project**

(Perm req) Credits: 1-4 Grading Method: Regular

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BULM Logistics, Business, and Public Policy Spring 2022

Courses with the BULM prefix are offered only for students in the MS in Supply Chain Management program.

BULM724 **Negotiations in Supply Chain Management**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)).

This high experiential course will improve students' negotiation skills and capacity to acquire and effectively use power. By using a variety of assessment tools, feedback sources, skill-building exercises, and exercise debriefings, the class will increase students' negotiating self-confidence and improve their capacity to achieve win-win solutions to individual, team, and organizational problems. The course is designed to enhance students negotiating self confidence and improve students analytical skills, interpersonal skills, creativity (e.g., identifying creative solutions to conflict), and persuasive abilities.

0501	Michael Geppi, Jon Crocker	Seats (Total: 0)
	Meets March 28, 2022 - May 12, 2022	
	MW 9:00am - 10:50am	VMH 1528

BULM731 Technology Applications in Supply Chain Management

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

In this course, we introduce the knowledge and skills necessary to quantify the impact of supply chain management decisions on the bottom line. Students will gain an understanding of accounting, finance, production cost, scheduling, and the link between supply chain and overall financial performance.

0501	Hongyi Zhang	Seats (Total: 28)
	Meets January 24, 2022 - March 10, 2022	
	TuTh 4:00pm - 5:50pm	VMH 3522
0502	Hongyi Zhang	Seats (Total: 24)
	Meets January 24, 2022 - March 10, 2022	
	TuTh 12:00pm - 1:50pm	VMH 3522

BULM735 Project Management in Dynamic Environments

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

Addresses project management skills that are required by successful managers in increasingly competitive and faster-moving environments. Examines fundamental concepts of successful project management, and the technical and managerial issues, methods, and techniques.

0501	Paul Shapiro	Seats (Total: 0)
	Meets January 24, 2022 - March 10, 2022	
	MW 10:00am - 11:50am	VMH 1511

BULM754 **Global Transportation Management**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BULM758T or BULM754. Formerly: BULM758T.

Introduces transportation as a field of managerial and governmental responsibility and presents the features that make the transportation arena unique and, thus,worthy of advanced study. Each of the five modes of transportation, along with other forms of carriage, will be considered. In addition, the importance of freight transportation within supply chain management will be examined. Issues related to passenger transportation will also be addressed. Throughout the course, particular attention will be paid to the significant impact that transportation has on economic development and growth.

0501	Philip Evers	Seats (Total: 0)
	Meets January 24, 2022 - March 10, 2022	
	MW 2:00pm - 3:50pm	VMH 1520

BULM758C **Special Topics in Logistics, Business and Public Policy; Assessing & Managing Supply Chain Risks**

(Perm req)

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in logistics, business and public policy.

0501	Hongyi Zhang	Seats (Total: 0)
	Meets March 28, 2022 - May 12, 2022	
	MW 4:00pm - 5:50pm	VMH 1511

BULM759 **Independent Study in Logistics Management**

(Perm req)

Credits: 1-6 Grading Method: Regular

Independent study for Masters students in Logistics Management.

Contact department for information to register for this course.

BUMK Marketing Spring 2022

BUMK744 **Marketing Research and Analytics**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758L or BUMK744. Formerly: BUMK758L.

Provides a review of primary data collection methods for marketing data. Students will learn how to design and implement effective confirmatory research. Both direct methods such as surveys and indirect methods such as experiments will be covered. In this hands-on course, students will design and conduct research with target customers, analyze the data, and then present their results to decision makers.

0501	Bruno Jacobs	Seats (Total: 0)
	Meets January 24, 2022 - May 12, 2022	
	MW 12:30pm - 1:45pm	VMH 1520
	For MS in Marketing Analytics students only.	
0502	Bruno Jacobs	Seats (Total: 0)
	Meets January 24, 2022 - May 12, 2022	
	MW 11:00am - 12:15pm	VMH 1520

BUMK746 **Data Science for Customer Analytics**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758W or BUMK746. Formerly: BUMK758W.

An introduction to data science and thebasic concepts of database management. The course also provides an overview of the various sources of in house data that are available to many organizations. Students will learn how to work with click stream, scanner panel and social media data. Geo-demographic datasets will be discussed and explored, and techniques for data-fusion will receive ample attention.

0501	Liye Ma	Seats (Total: 0)
	Meets January 24, 2022 - May 12, 2022	
	TuTh 5:00pm - 6:15pm	VMH 1520
	For MS in Marketing Analytics students only.	

0502	Liye Ma	Seats (Total: 0)
	Meets January 24, 2022 - May 12, 2022	
	TuTh 3:30pm - 4:45pm	VMH 1520

BUMK747 **CRM Analytics**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith. Credit only granted for: BUMK758R or BUMK747. Formerly: BUMK758R.

Customer Equity Management and Customer Relationship Marketing focuses on selective acquisition, development and retention of customers aided by developments in information technology and analytics - databases, online channels, social media, mobile technologies, and marketing analytics - with the objective of increasing a firm's customer equity (firm's value). This course will focus on the conceptual foundations of customer equity and relationship management, their strategic implications, and implementations in both B-2-B and B-2-C contexts, especially in the emerging era of big data. The course will provide insights into the role of measuring and managing customer equity and customer loyalty using online and offline media and channels. The objective of the course is to examine the strategic and analytical aspects in equal measure so that participants will have a deeper understanding of the power of customer equity and customer analytics, and how to put it to work effectively using data, big or small.

0501	David Godes	Seats (Total: 0)
	Meets March 28, 2022 - May 12, 2022	
	MW 10:00am - 11:50am	VMH 1511
0502	David Godes	Seats (Total: 0)
	Meets March 28, 2022 - May 12, 2022	
	MW 2:00pm - 3:50pm	VMH 1511

BUMK759 **Independent Study in Marketing**

(Perm req)

Credits: 1-6 Grading Method: Regular

Independent study for Masters students in Marketing.

Contact department for information to register for this course.

BUMK764 **Business Communications II**

(Perm req)

Credits: 1 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758G or BUMK764. Formerly: BUMK758G.

Teaches students how to communicate quantitative information effectively. Focuses on developing written, spoken and presentation skills.

0501	Ram Viswanathan, Christine Schaaf **Meets January 24, 2022 - March 10, 2022** M 4:00pm - 5:50pm *For MS in Marketing Analytics students only.*	Seats (Total: 0) VMH 1520
0502	Christine Schaaf **Meets January 24, 2022 - March 10, 2022** W 4:00pm - 5:50pm *For MS in Marketing Analytics students only.*	Seats (Total: 0) VMH 1520

BUMK766 **Digital Analytics**

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758N or BUMK766. Formerly: BUMK758N.

Examines the process of developing, implementing and analyzing strategies for successfully marketing a variety of existing and potential products and services on the Internet. Special attention is devoted to the tools and techniques unique to the electronic media.

0501	Michael Trusov **Meets January 24, 2022 - March 10, 2022** TuTh 2:00pm - 3:50pm	Seats (Total: 42) VMH 2511

BUMK774 **Market Forecasting**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758A or BUMK774. Formerly: BUMK758A.

Market forecasting methods for different contexts. Focus on quantitative modeling techniques based on established statistical methods. Non-statistical methods used when empirical data is scarce. This is a very hands-on class where students will apply the forecasting methods learned to real data.

0501	Wendy Moe **Meets March 28, 2022 - May 12, 2022** MW 2:00pm - 3:50pm	Seats (Total: 20) VMH 1336

BUMK776 **Action Learning Project**

(Perm req) Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758Q or BUMK776. Formerly: BUMK758Q.

Students analyze marketing data, report their findings and provide appropriate recommendations.

0501	Liye Ma **Meets January 24, 2022 - March 10, 2022** TuTh 12:00pm - 1:50pm *For MS in Marketing Analytics students only.*	Seats (Total: 0) VMH 1412
0502	Liye Ma **Meets January 24, 2022 - March 10, 2022** TuTh 10:00am - 11:50am	Seats (Total: 0) VMH 1412

BUSI Part-Time MBA Program Spring 2022

BUSI602 **Leading with a Strategic Mindset**

(Perm req) Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business.

This course sits at the intersection of leadership and strategy. Focuses on the aspects of the firm that facilitate reaching strategic objectives. In particular, organizational alignment facilitates the development of innovative ideas, achieving operational efficiency, sustaining organizational growth, adopting new business models, achieving strategic change, and building organizational competence. Use of several tools in analysis, such as congruence analysis, the 7S model, network analysis, and design thinking. Focus on thinking systematically and analytically about managing an organization and leading strategically.

BA01	Jainaba Ceesay **Meets March 28, 2022 - May 12, 2022** Tu 6:25pm - 10:00pm	Seats (Total: 45) BA 104

DC01	Neta Moye **Meets March 28, 2022 - May 12, 2022** W 6:25pm - 10:00pm	Seats (Total: 45) DC C2
DC02	Richard Cober **Meets March 28, 2022 - May 12, 2022** Th 6:25pm - 10:00pm	Seats (Total: 45) DC C2
GS01	Behzad Gohari **Meets March 28, 2022 - May 12, 2022** M 6:25pm - 10:00pm	Seats (Total: 45) BLD4 4335

BUSI610 **Introduction to Financial Accounting**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)). Credit only granted for: BUSI610, BUAC602, BUFN602, or BMGT602.

Overview of financial accounting, periodic financial statements and the financial reporting process. Importance of financial statements as information source for creditors and investors and as a means by which managers can communicate information about their firms.

BA01	Musa Subasi **Meets January 24, 2022 - March 10, 2022** M 6:25pm - 10:00pm	Seats (Total: 0) BA 104
DC01	Michael Kimbrough **Meets January 24, 2022 - March 10, 2022** W 6:25pm - 10:00pm	Seats (Total: 0) DC C3
DC02	Michael Kimbrough **Meets January 24, 2022 - March 10, 2022** Th 6:25pm - 10:00pm	Seats (Total: 0) DC C3
GS01	Musa Subasi **Meets January 24, 2022 - March 10, 2022** Tu 6:25pm - 10:00pm	Seats (Total: 0) BLD4 4335

BUSI611 **Managerial Accounting**

(Perm req) Credits: 2 Grading Method: Regular

Prerequisite: BUSI610. Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)). Credit only granted for: BUSI611, BUAC616, or BMGT616.

Use of accounting data in corporate planning and control. Cost-volume- profit analysis, budgeting, pricing decisions and cost data, transfer pricing, activity-based management, performance measures, and standard costing.

BA01	Bill Ford **Meets January 24, 2022 - March 10, 2022** Tu 6:25pm - 10:00pm	Seats (Total: 0) BA 104
DC01	Lu Zhang **Meets January 24, 2022 - March 10, 2022** W 6:25pm - 10:00pm	Seats (Total: 0) DC C2
DC02	Lu Zhang **Meets January 24, 2022 - March 10, 2022** Th 6:25pm - 10:00pm	Seats (Total: 0) DC C2
GS01	Lu Zhang **Meets January 24, 2022 - March 10, 2022** M 6:25pm - 10:00pm	Seats (Total: 0) BLD4 4335

BUSI621 **Digital Transformation in Business**

(Perm req) Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's); or permission of BMGT-Robert H Smith. Credit only granted for: BUSI621 or BUSO620.

Introduces students to the strategic role of digital transformation within businesses, and provides an overview for how major information technologies may be used to inform and transform the firm's strategic, operational, and tactical decisions. Topics discussed in the course include the strategic use of digital technologies to generate sustainable competitive value; the contributions of new forms of technology infrastructure; the evaluation of new technology investments and the resulting ROI; acquiring, managing and governing technological capabilities within the firm; understanding the role of enterprise systems and social technologies within the firm; and the management of disruptive technologies within and outside the firm.

BA01	Tejwansh Anand **Meets January 24, 2022 - March 10, 2022** Th 6:25pm - 10:00pm	Seats (Total: 0) BA 104
BA02	Tejwansh Anand **Meets March 28, 2022 - May 12, 2022** M 6:25pm - 10:00pm	Seats (Total: 0) BA 104
DC01	Il-Horn Hann **Meets January 24, 2022 - March 10, 2022** M 6:25pm - 10:00pm	Seats (Total: 0) DC C2
DC02	Il-Horn Hann **Meets January 24, 2022 - March 10, 2022** Tu 6:25pm - 10:00pm	Seats (Total: 0) DC C2
DC03	Il-Horn Hann **Meets March 28, 2022 - May 12, 2022** W 6:25pm - 10:00pm	Seats (Total: 0) DC C3
DC04	Il-Horn Hann **Meets March 28, 2022 - May 12, 2022** Th 6:25pm - 10:00pm	Seats (Total: 0) DC C3
GS01	Tejwansh Anand **Meets January 24, 2022 - March 10, 2022** W 6:25pm - 10:00pm	Seats (Total: 0) BLD4 4335
GS02	Tejwansh Anand **Meets March 28, 2022 - May 12, 2022** Tu 6:25pm - 10:00pm	Seats (Total: 0) BLD4 4335

BUSI622 **Managing Digital Business Markets**

Credits: 2 Grading Method: Regular

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)) ; or permission of BMGT-Robert H. Smith School of Business.

The objective is to understand the strategic and tactical issues involved in managing digital businesses and markets. Also, some of the characteristics of digital businesses and markets that make them unique and understand how companies can best manage them will be examined.

BA01	Tejwansh Anand **Meets January 24, 2022 - March 10, 2022** M 6:25pm - 10:00pm	Seats (Total: 50) ONLINE

BUSI640 **Corporate Finance**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)).

Focuses on the valuation of the real assets of firms as well as the valuation of stocks and bonds, the primary financial assets in an economy. While details vary, the conceptual foundations of valuation boil down to three themes: time value of money, no-arbitrage, and systematic risk.

BA01	Michael Faulkender **Meets March 28, 2022 - May 12, 2022** W 6:25pm - 10:00pm	Seats (Total: 0) BA 104
DC01	Michael Faulkender **Meets March 28, 2022 - May 12, 2022** M 6:25pm - 10:00pm	Seats (Total: 0) DC C3
DC02	Michael Faulkender **Meets March 28, 2022 - May 12, 2022** Tu 6:25pm - 10:00pm	Seats (Total: 0) DC C3
GS01	Liu Yang **Meets March 28, 2022 - May 12, 2022** Th 6:25pm - 10:00pm	Seats (Total: 0) BLD4 4335

BUSI690 **Strategic Management**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)). Credit only granted for: BUSI690 or BMGT614.

Analyze and identify profit opportunities and threats in different industry and competitive environments; Analyze and identify a firm's valuable assets, resources and capabilities and how they might be protected, leveraged, and extended in the market; Learn how to organize your company to be the best prepared to adapt its strategy over time as the market environment changes; and how to use organic growth as well as mergers, acquisitions, joint ventures, alliances, and divestitures to ensure that the firm maintians the proper scale and scope to compete effectively over time.

BA01	Paulo Prochno **Meets January 24, 2022 - March 10, 2022** W 6:25pm - 10:00pm	Seats (Total: 0) BA 104
DC01	David Waguespack **Meets January 24, 2022 - March 10, 2022** M 6:25pm - 10:00pm	Seats (Total: 0) DC C3
DC02	David Waguespack **Meets January 24, 2022 - March 10, 2022** Tu 6:25pm - 10:00pm	Seats (Total: 0) DC C3
GS01	Paulo Prochno **Meets January 24, 2022 - March 10, 2022** Th 6:25pm - 10:00pm	Seats (Total: 0) BLD4 4335

BUSI710 **Competitive and Collaborative Negotiation**

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business.

Increase negotiating self-confidence and improve capacity to achieve win-win solutions to organizational problems. Improve effectiveness at finding creative solutions to conflict.

BA01	Gosia Langa Basit **Meets March 28, 2022 - May 12, 2022** Th 6:25pm - 10:00pm	Seats (Total: 45) BA 103
DC01	Gosia Langa Basit **Meets March 28, 2022 - May 12, 2022** M 6:25pm - 10:00pm	Seats (Total: 45) DC C1

GS01	Rellie Rozin	Seats (Total: 45)
	Meets March 28, 2022 - May 12, 2022	
	Tu 6:25pm - 10:00pm	BLD4 4308

BUSI741 **Financial Strategy for Corporations**

Credits: 2 Grading Method: Regular

Prerequisite: BUSI640. Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business.

Advanced course in corporate finance, focusing on the issues that firms face when they plan to raise external capital from financial markets. The focus is on the financing problems faced by mid-market to large firms and on capital raised from public markets. The forms of external finance vary from simple debt or equity to more complex securities that bundle with an element of risk management.

BA01	Pablo Slutzky	Seats (Total: 45)
	Meets March 28, 2022 - May 12, 2022	
	M 6:25pm - 10:00pm	ONLINE

BUSI758F **Special Topics in Business; Investment Fund Management**

(Perm req)

Credits: 3 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

DC01	Kenneth Fuller	Seats (Total: 18)
	Meets January 24, 2022 - May 12, 2022	
	Tu 6:25pm - 10:00pm	DC C1

BUSI758P **Special Topics in Business; Managing Global Business Risks and Opportunities**

Credits: 4 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

GX01	Bennet Zelner	Seats (Total: 60)
	Meets January 24, 2022 - May 12, 2022	
	Contact instructor or department for details.	
GX02	Bennet Zelner	Seats (Total: 60)
	Meets January 24, 2022 - May 12, 2022	
	Contact instructor or department for details.	

BUSI759 **Independent Study in Business**

(Perm req)

Credits: 1-6 Grading Method: Regular

Independent study for Masters students in Business.

Contact department for information to register for this course.

BUSI764 **Business Law for Managers**

Credits: 2 Grading Method: Regular

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)) ; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI764 or BUAC721.

Survey of United States legal institutions and processes as well as substantive areas of the law that affect business. Examination of tort and contract law, the legal forms of business organization and legal liability and major regulatory laws that affect business.

BA01	Jennifer Gershberg	Seats (Total: 45)
	Meets January 24, 2022 - March 10, 2022	
	W 6:25pm - 10:00pm	ONLINE

BUSI799 **Masters Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BUSM Full-Time MBA Program Spring 2022

BUSM614 **Strategic Management**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI690 or BUSM614.

Analyze and identify profit opportunities and threats in different industry and competitive environments; Analyze and identify a firm's valuable assets, resources and capabilities and how they might be protected, leveraged, and extended in the market; Learn how to organize your company to be the best prepared to adapt its strategy over time as the market environment changes; and how to use organic growth as well as mergers, acquisitions, joint ventures, alliances, and divestitures to ensure that the firm maintians the proper scale and scope to compete effectively over time.

0101	Paulo Prochno	Seats (Total: 0)
	Meets March 28, 2022 - May 12, 2022	
	TuTh 4:00pm - 5:50pm	VMH 1412

BUSM624 **Operations Management**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI634 or BUSM624.

Operations management is concerned with efficient and effective design and operation of business processes for delivering products and/or services. Emphasis is given to process analysis and design, capacity management and bottlenecks, waiting lines and the impact of uncertainty in process performance, quality management, lean, six-sigma, and revenue management.

0101	Wedad Elmaghraby	Seats (Total: 0)
	Meets January 24, 2022 - March 10, 2022	
	TuTh 2:00pm - 3:50pm	VMH 1412

BUSM626 **The Global Economic Environment**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI683 or BUSM626.

Relationship between national and international economic environments. Determinants of output, interest rates, prices and exchange rates. Analysis of effect of economic policies (fiscal, monetary, trade, tax) on the firm and the economy.

0101	Wilbur Chung	Seats (Total: 0)
	Meets January 24, 2022 - March 10, 2022	
	TuTh 2:00pm - 3:50pm	VMH 2505
0201	Wilbur Chung	Seats (Total: 0)
	Meets January 24, 2022 - March 10, 2022	
	TuTh 4:00pm - 5:50pm	VMH 2505

BUSM701 **Marketing Research Methods**

Credits: 2 Grading Method: Regular

Prerequisite: BUSM606; and BUSM612. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK701 or BUSM701. Formerly: BUMK701.

The process of acquiring, classifying and interpreting primary and secondary marketing data needed for intelligent, profitable marketing decisions. Evaluation of the appropriateness of alternative methodologies, such as the inductive, deductive, survey, observational, and experimental. Recent developments in the systematic recording and use of internal and external data needed for marketing decisions.

0101	Yogesh Joshi	Seats (Total: 30)
	Meets January 24, 2022 - March 10, 2022	
	MW 2:00pm - 3:50pm	VMH 1412

BUSM702 **Consumer Behavior**

Credits: 2 Grading Method: Regular

Prerequisite: BUSM612. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK715 or BUSM702.

Analysis of customer decision-making and how marketing strategy can be used to influence those decisions. The framework is a buyer behavior model, in which concepts from psychology, sociology, and economics are applied to individual and organizational purchase decisions. Marketing strategies of leading firms in consumer products, technology, and services (including internet services) are analyzed using a variety of case study formats. Focus is consumer behavior; however, principles can also be applied to the decision-making of business.

0101	Ali Faraji-Rad	Seats (Total: 30)
	Meets January 24, 2022 - March 10, 2022	
	MW 10:00am - 11:50am	VMH 1415

BUSM705 **Brand Management**

Credits: 2 Grading Method: Regular

Prerequisite: BUSM612. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK716 or BUSM705.

Brand names are valuable assets for firms. Effective brand management is critical to maintaining the long-term profitability of products and services. Topics include understanding brands from the customer's perspective, building brand equity, measuring brand equity, leveraging brand equity, managing brand portfolios and managing brands over time.

0101	Mary Beth Furst	Seats (Total: 30)
	Meets March 28, 2022 - May 12, 2022	
	MW 2:00pm - 3:50pm	VMH 1412

BUSM713 **Market Forecasting**

Credits: 2 Grading Method: Regular

Prerequisite: BUSM606 and BUSM612. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

Students will learn a number of market forecasting methods, each appropriate for different contexts. The majority of this course focuses on quantitative modeling techniques based on established statistical methods. We also cover non-statistical methods that are often used when empirical data is scarce. This is a very hands-on class where students will apply the forecasting methods learned to real data.

0101	Wendy Moe	Seats (Total: 47)
	Meets March 28, 2022 - May 12, 2022	
	MW 12:00pm - 1:50pm	VMH 1336

BUSM733 **Valuation in Corporate Finance**

Credits: 2 Grading Method: Regular

Prerequisite: BUSM610. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN750 or BUSM733.

An advanced topics course in Corporate Finance dealing with valuation. Main topics will be, building pro forma statements, cost of capital, using ratios and comparables to value projects and firms, dicounted cash flow valuations, WACC and APV methods of valuation and Real Option Valuations.

0101	Maria Bustamante	Seats (Total: 35)
	Meets January 24, 2022 - March 10, 2022	
	MW 4:00pm - 5:50pm	VMH 1412

BUSM735 **Financial Strategy for Corporations**

Credits: 2 Grading Method: Regular

Prerequisite: BUSM610. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN751 or BUSM735.

An advanced course in corporate finance, focusing on the issues that firms face when they plan to raise external capital from financial markets. The focus is on the financing problems faced by mid-market to large firms and on capital raised from public markets. The forms of external finance vary from simple debt or equity to more complex securities that bundle with an element of risk management.

0101	Pablo Slutzky	Seats (Total: 37)
	Meets March 28, 2022 - May 12, 2022	
	MW 10:00am - 11:50am	VMH 2505

BUSM738A **Investment Fund Management; Mayer Fund**

(Perm req)

Credits: 3 Grading Method: Regular

Provides second-year Master in Business Administration students with the opportunity to apply the skills learned in finance classes to actual investment decisions through management of an investment fund.

0101	Sarah Kroncke	Seats (Total: 15)
	Meets January 24, 2022 - May 12, 2022	
	TuTh 12:00pm - 1:50pm	VMH 2509

BUSM750 **Project Management in Dynamic Environments**

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI785 or BUSM750.

Addresses project management skills that are required by successful managers in increasingly competitive and faster-moving environments. Examines fundamental concepts of successful project management, and the technical and managerial issues, methods, and techniques.

0101	Paul Shapiro	Seats (Total: 45)
	Meets January 24, 2022 - March 10, 2022	
	TuTh 10:00am - 11:50am	VMH 1336

BUSM751 **Managing Supply Chains: Models & Analysis**

Credits: 2 Grading Method: Regular

Prerequisite: BUSM606 and BUSM624. Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business.

Focuses on the strategic aspects of operations and supply chain management. Uses a framework for developing an operations strategy, and identify and analyze the key operations decisions which can have a major impact on a company's competitive position.

0101	Zhi-Long Chen	Seats (Total: 37)
	Meets March 28, 2022 - May 12, 2022	
	MW 2:00pm - 3:50pm	VMH 2505

BUSM758A **Special Topics in Business; AI: Implications for Business Strategy**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

0101	Anil Gupta	Seats (Total: 25)
	Meets March 28, 2022 - May 12, 2022	
	TuTh 10:00am - 11:50am	VMH 1412

BUSM758E **Special Topics in Business; Managing Global Business Risks and Opportunities**

Credits: 4 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

GX01	Bennet Zelner	Seats (Total: 60)
	Meets January 24, 2022 - May 12, 2022	
	Contact instructor or department for details.	

BUSM758I **Special Topics in Business; Advanced Financial Modeling and Equity Analysis**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

0101	Sarah Kroncke	Seats (Total: 45)
	Meets March 28, 2022 - May 12, 2022	
	TuTh 10:00am - 11:50am	VMH 1511

BUSM758O **Special Topics in Business; Navigating Organizational Networks**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

0101	Sheetal Singh	Seats (Total: 30)
	Meets March 28, 2022 - May 12, 2022	
	MW 4:00pm - 5:50pm	VMH 1412

BUSM758S **Special Topics in Business; Investments**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

0101	Kenneth Fuller	Seats (Total: 45)
	Meets January 24, 2022 - March 10, 2022	
	MW 12:00pm - 1:50pm	VMH 1336

BUSM758Z **Special Topics in Business; Integrative Capstone**

(Perm req)

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

0101	Nicole Coomber	Seats (Total: 0)
	Meets March 28, 2022 - May 12, 2022	
	TuTh 4:00pm - 5:50pm	VMH 2505
0201	Nicole Coomber	Seats (Total: 0)
	Meets March 28, 2022 - May 12, 2022	
	TuTh 2:00pm - 3:50pm	VMH 2505

BUSM761 **Data Mining and Predictive Analytics**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: BUSM606. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUDT733 or BUSM761. Formerly: BUDT733.

Data mining techniques and their use in business decision making. A hands-on course that provides an understanding of the key methods of data visualization, exploration, classification, prediction, time series forecasting, and clustering.

0101	Margret Bjarnadottir	Seats (Total: 49)
	Meets January 24, 2022 - March 10, 2022	
	TuTh 4:00pm - 5:50pm	VMH 1412

BUSM762 **Decision Analytics**

Credits: 2 Grading Method: Regular

Prerequisite: BUSM606. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUDT732 or BUSM762.

Analytical modeling for managerial decisions using a spreadsheet environment. Includes linear and nonlinear optimization models, decision making under uncertainty and simulation models.

0101	Sujin Kim	Seats (Total: 45)
	Meets March 28, 2022 - May 12, 2022	
	TuTh 2:00pm - 3:50pm	VMH 1412

BUSM771 **Leading Strategically**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business.

Focus on the aspects of the firm that facilitate reaching strategic objectives. The firm is comprised of formal structures or architecture, routines and practices, and culture and norms that all need to be well-aligned to support your strategy. In particular, organizational alignment facilitates the development of innovative ideas, achieving operational efficiency, sustaining organizational growth, adopting new business models, achieving strategic change, and building organizational competence. Students will use several tools to assist in analysis, such as congruence analysis, the 7S model, network analysis, and design thinking. Focus on thinking systematically and analytically about managing an organization and leading strategically.

0101	Neta Moye	Seats (Total: 0)
	Meets March 28, 2022 - May 12, 2022	
	TuTh 2:00pm - 3:50pm	VMH 2511
0201	Neta Moye	Seats (Total: 0)
	Meets March 28, 2022 - May 12, 2022	
	TuTh 4:00pm - 5:50pm	VMH 2511

BUSM775 **Global Strategy**

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMO754 or BUSM775.

Focuses on the "strategic" and "organizational" questions that a company must address as it globalizes its footprint. Among the questions that will be addressed are: What are the potential benefits, costs, and risks associated with going abroad? What differentiates a "global" from a "multidomestic" industry? What are the sources of competitive advantage in a global context?

0101	Paulo Prochno	Seats (Total: 37)
	Meets March 28, 2022 - May 12, 2022	
	MW 4:00pm - 5:50pm	VMH 2505

BUSM781 **International Economics for Managers**

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business.

Focus on understanding critical aspects of international economics that influence firm decisions and behavior. While covering theoretic fundamentals of international trade and foreign direct investment, focus on the implications for managers from these international economic activities. Such forces of globalization create winners and losers, and consider how firms can take advantage of these asymmetries. The topical issues include: - international trade: trade theory, comparative advantage, production location, why and how government is involved in international trade, how government involvement affects trade - firms participating abroad: determinants of foreign direct investment, location choice, off-shoring, emerging multinationals, emerging markets.

0101	Jon Crocker	Seats (Total: 37)
	Meets March 28, 2022 - May 12, 2022	
	TuTh 10:00am - 11:50am	VMH 1336

BUSM798Q **Business Consulting; Business Consulting I**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

0101	Albert Krall, Nicole Coomber	Seats (Total: 35)
	Meets January 24, 2022 - March 10, 2022	
	MW 10:00am - 11:50am	VMH 1336

BUSO Online MBA Program Spring 2022

BUSO601 **Corporate Finance I**

Credits: 2 Grading Method: Regular

Prerequisite: BUSO602. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

Introductory course in corporate financial management. The course outlines the financial concepts and techniques used to evaluate corporate decisions. The topics include the time value of money, valuation of common securities, capital budgeting methods, and discounted cash flow. The objectives are to introduce the language and structure of finance and to develop the ability to analyze financial decisions.

SO11	Ceyed Baiju **Meets March 28, 2022 - May 12, 2022** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 26) ONLINE ONLINE
SO12	Ceyed Baiju **Meets March 28, 2022 - May 12, 2022** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 26) ONLINE ONLINE
SO13	Elinda Kiss **Meets March 28, 2022 - May 12, 2022** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 26) ONLINE ONLINE
SO14	Elinda Kiss **Meets March 28, 2022 - May 12, 2022** Tu 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 26) ONLINE ONLINE
SO15	Joel Naroff **Meets March 28, 2022 - May 12, 2022** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 26) ONLINE ONLINE

BUSO602 **Financial Accounting**

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: EMBA610 or BUSO602.

Overview of financial accounting, periodic financial statements and the financial reporting process. Importance of financial statements as information source for creditors and investors and as a means by which managers can communicate information about their firms.

SO11	Bill Ford **Meets January 24, 2022 - March 10, 2022** W 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO12	Bill Ford **Meets January 24, 2022 - March 10, 2022** W 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO13	Progyan Basu **Meets January 24, 2022 - March 10, 2022** Th 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO14	Progyan Basu **Meets January 24, 2022 - March 10, 2022** Th 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO15	Bill Ford **Meets January 24, 2022 - March 10, 2022** Th 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE

BUSO603 **Data Analysis**

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

Many different skills are required in arriving at informed managerial decisions. Among these are analytical and quantitative skills. Data Analysis is one in a sequence of two courses that seeks to develop these two important skills. More formally, the goals of this course are: to introduce basic statistical techniques: summarizing and presenting data; confidence intervals and hypothesis tests; regression analysis.; to implement these techniques using spreadsheets; and to become active users of data analysis in making managerial decisions.

SO11	Sujin Kim	Seats (Total: 30)
	Meets March 28, 2022 - May 12, 2022	
	M 7:00pm - 8:30pm	ONLINE
	Class time/details on ELMs	ONLINE

BUSO614 **Strategic Management**

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI690, BUSM614 or BUSO614.

Analyze and identify profit opportunities and threats in different industry and competitive environments; Analyze and identify a firm's valuable assets, resources and capabilities and how they might be protected, leveraged, and extended in the market; Learn how to organize your company to be the best prepared to adapt its strategy over time as the market environment changes; and how to use organic growth as well as mergers, acquisitions, joint ventures, alliances, and divestitures to ensure that the firm maintians the proper scale and scope to compete effectively over time.

SO11	Paulo Prochno	Seats (Total: 28)
	Meets January 24, 2022 - March 10, 2022	
	M 7:00pm - 8:30pm	ONLINE
	Class time/details on ELMs	ONLINE
SO12	Paulo Prochno	Seats (Total: 28)
	Meets January 24, 2022 - March 10, 2022	
	M 8:45pm - 10:15pm	ONLINE
	Class time/details on ELMs	ONLINE
SO13	Melanie Cohen	Seats (Total: 28)
	Meets January 24, 2022 - March 10, 2022	
	M 7:00pm - 8:30pm	ONLINE
	Class time/details on ELMs	ONLINE
SO14	Clarence Wesley	Seats (Total: 28)
	Meets January 24, 2022 - March 10, 2022	
	Tu 7:00pm - 8:30pm	ONLINE
	Class time/details on ELMs	ONLINE

SO15	Clarence Wesley	Seats (Total: 28)
	Meets January 24, 2022 - March 10, 2022	
	Tu 8:45pm - 10:15pm	ONLINE
	Class time/details on ELMs	ONLINE

BUSO616 **Managerial Accounting**

Credits: 2 Grading Method: Regular

Prerequisite: BUSI610; or BUSO602; or BUSM602. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI611, BUSM616 or BUSO616.

Use of accounting data in corporate planning and control. Cost-volume- profit analysis, budgeting, pricing decisions and cost data, transfer pricing, activity-based management, performance measures, and standard costing.

SO11	Namrata Maguire	Seats (Total: 25)
	Meets January 24, 2022 - March 10, 2022	
	Th 7:00pm - 8:30pm	ONLINE
	Class time/details on ELMs	ONLINE
SO12	Namrata Maguire	Seats (Total: 25)
	Meets January 24, 2022 - March 10, 2022	
	Th 8:45pm - 10:15pm	ONLINE
	Class time/details on ELMs	ONLINE

BUSO620 **Strategic Information Systems**

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSO620, BUSI621, BUSM621 or EMBA620.

Use of information technology to achieve competitive advantage, efficient operations, and effective decision making. Analysis of functions of information technology and its impact on competitive strategy and organizational operations.

SO11	Jui Ramaprasad	Seats (Total: 30)
	Meets March 28, 2022 - May 12, 2022	
	W 8:45pm - 10:15pm	ONLINE
	Class time/details on ELMs	ONLINE

SO12	Patrick Stack **Meets March 28, 2022 - May 12, 2022** W 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO13	Jui Ramaprasad **Meets March 28, 2022 - May 12, 2022** Th 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO14	Jui Ramaprasad **Meets March 28, 2022 - May 12, 2022** Th 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO15	Robert Smith **Meets March 28, 2022 - May 12, 2022** Th 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO17	Raymond Barber **Meets March 28, 2022 - May 12, 2022** Th 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE

BUSO624 **Operations Management**

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI634, BUSM624 or BUSO624.

Operations management is concerned with efficient and effective design and operation of business processes for delivering products and/or services. Emphasis is given to process analysis and design, capacity management and bottlenecks, waiting lines and the impact of uncertainty in process performance, quality management, lean, six-sigma, and revenue management.

SO31	Yi Xu **Meets January 24, 2022 - March 10, 2022** W 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE

SO32	Yi Xu	Seats (Total: 30)
	Meets January 24, 2022 - March 10, 2022	
	W 8:45pm - 10:15pm Class time/details on ELMs	ONLINE ONLINE
SO33	Yi Xu	Seats (Total: 30)
	Meets January 24, 2022 - March 10, 2022	
	Th 7:00pm - 8:30pm Class time/details on ELMs	ONLINE ONLINE
SO34	Yi Xu	Seats (Total: 30)
	Meets January 24, 2022 - March 10, 2022	
	Th 8:45pm - 10:15pm Class time/details on ELMs	ONLINE ONLINE
SO35	Ming Chen	Seats (Total: 30)
	Meets January 24, 2022 - March 10, 2022	
	Th 7:00pm - 8:30pm Class time/details on ELMs	ONLINE ONLINE
SO36	Ming Chen	Seats (Total: 30)
	Meets January 24, 2022 - March 10, 2022	
	Th 8:45pm - 10:15pm Class time/details on ELMs	ONLINE ONLINE

BUSO626 **The Global Economic Environment**

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI683, BUSM626 or BUSO626.

Relationship between national and international economic environments. Determinants of output, interest rates, prices and exchange rates. Analysis of effect of economic policies (fiscal, monetary, trade, tax) on the firm and the economy.

SO11	Bennet Zelner	Seats (Total: 25)
	Meets January 24, 2022 - March 10, 2022	
	Tu 7:00pm - 8:30pm Class time/details on ELMs	ONLINE ONLINE

SO12	Bennet Zelner	Seats (Total: 25)
	Meets January 24, 2022 - March 10, 2022	
	Tu 8:45pm - 10:15pm	ONLINE
	Class time/details on ELMs	ONLINE

BUSO700 **Fundamentals of Business**

Credits: 2 Grading Method: Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

This course introduces students to the language of business. Topics covered include financial accounting, financial management, data models, strategy, leadership and teamwork, and a brief action learning project on innovation. Pre-work includes the DISC assessment, and a requires a passing grade on a spreadsheet pre-work course.

SO91	Paulo Prochno	Seats (Total: 100)
	Meets January 14, 2022 - January 16, 2022	
	FSaSu 8:00am - 8:30pm	Location: TBA

BUSO701 **Integrative Business Capstone**

Credits: 2 Grading Method: Sat-Fail

Prerequisite: Students must have completed a minimum of 48 credit hours. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

This is an experiential course that involves an integrative business experience. This experience may be simulated through a software package or through content, speakers and events that are based in a realistic business setting. Students compete in teams. Each team makes decisions in areas such as human resources, compensation packages, geographic expansion through sales offices, debt versus equity financing, manufacturing and inventory management, marketing, including pricing, advertising and product design. The impact of each of these decisions flows through the three financial statements and results in financial outcomes and ratios that measure the success of each team. Additional metrics include stakeholders beyond investors such as employee morale, community engagement, and environmental impact. Students compete for financing and for customers. Multiple presentations are made by students during the simulation to explain their strategy, their tactics, and their planned investments.

SO92	Judy Frels	Seats (Total: 100)
	Meets May 15, 2022 - May 18, 2022	
	MTuSu 8:00am - 8:00pm	Location: TBA

BUSO702 **Action Learning Project I**

Credits: 1 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

The objective of the Action Learning Project I and II is for teams to identify and solve business problems that currently exist in organizations and in the process, to provide significant value to organizations and their stakeholders. The experience of solving business problems will both enable students to apply knowledge learned in core courses and to develop the wisdom, skills, and problem-solving capabilities of team members. This course is designed to promote independent learning. Faculty members will offer mini-modules on key themes such as team dynamics, client relations and consulting protocols but their primary role will be to facilitate the ALP process and serve as consultants to the student teams.Selecting the right project and defining it unambiguously sets the stage for the rest of the ALP process improvement or problem solving effort, ultimately leading to a relevant, value added and well-received deliverable. Poor problem selection creates longer-term problems for both ALP teams and the sponsoring organization and can reduce or impede the quality of your learning experience. For this reason, we will lay the foundation for the final selection of projects during this term (a) soliciting ideas from all students, and (b) offering feedback to identify and nurture the most promising ideas.

SO31	Protiti Dastidar **Meets January 24, 2022 - May 12, 2022** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 26) ONLINE ONLINE
SO32	Protiti Dastidar **Meets January 24, 2022 - May 12, 2022** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 26) ONLINE ONLINE
SO33	Neta Moye **Meets January 24, 2022 - May 12, 2022** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 26) ONLINE ONLINE
SO34	Toby Egan **Meets January 24, 2022 - May 12, 2022** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 26) ONLINE ONLINE

SO35	Toby Egan **Meets January 24, 2022 - May 12, 2022** Tu 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 26) ONLINE ONLINE
SO36	Nicole Coomber **Meets January 24, 2022 - May 12, 2022** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 26) ONLINE ONLINE

BUSO704 **Ethical Leadership**

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: EMBA678 or BUSO704.

This course will examine business ethics issues across a variety of business contexts. You will learn toapply a number of ethical theories to business problems, primarily through case studies and discussion.The goal is for you to engage actively with the material and understand the complexity of many ethical dilemmas that businesses and business owners face. Often in ethics there is not one right answer; rather,businesses and individuals must wrestle with ethical principles that may compete and conflict with one another in arriving at a resolution. We will explore conflicts between personal values and organizationalgoals, ethics as part of a business strategy, and various ethical frameworks businesses may use in understanding and implementing ethical approaches to problems.

SO31	Trevor Foulk **Meets January 24, 2022 - March 10, 2022** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO32	Trevor Foulk **Meets January 24, 2022 - March 10, 2022** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO33	Jennifer Marr **Meets January 24, 2022 - March 10, 2022** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE

SO34	Jennifer Marr **Meets January 24, 2022 - March 10, 2022** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO35	Trevor Foulk **Meets January 24, 2022 - March 10, 2022** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO36	Trevor Foulk **Meets January 24, 2022 - March 10, 2022** Tu 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE

BUSO711 **Executive Powers and Negotiation**

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMO714, BUSM754 or BUSO711.

Increase negotiating self-confidence and improve capacity to achieve win-win solutions to organizational problems. Improve effectiveness at finding creative solutions to conflict.

SO31	Rellie Rozin **Meets March 28, 2022 - May 12, 2022** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 29) ONLINE ONLINE
SO32	Rellie Rozin **Meets March 28, 2022 - May 12, 2022** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 29) ONLINE ONLINE
SO33	Vijaya Venkataramani **Meets March 28, 2022 - May 12, 2022** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 29) ONLINE ONLINE

SO34	Vijaya Venkataramani **Meets March 28, 2022 - May 12, 2022** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 29) ONLINE ONLINE
SO35	Kathryn Bartol **Meets March 28, 2022 - May 12, 2022** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 29) ONLINE ONLINE
SO36	Kathryn Bartol **Meets March 28, 2022 - May 12, 2022** Tu 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 29) ONLINE ONLINE

BUSO733 **Data Mining and Predictive Analytics**

Credits: 2 Grading Method: Regular

Prerequisite: BUSM606; or BUSO607; or BUSI630. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUDT733, BUSM761 or BUSO733.

Data mining techniques and their use in business decision making. A hands-on course that provides an understanding of the key methods of data visualization, exploration, classification, prediction, time series forecasting, and clustering.

SO51	Margret Bjarnadottir **Meets March 28, 2022 - May 12, 2022** Th 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO52	Margret Bjarnadottir **Meets March 28, 2022 - May 12, 2022** Th 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE

BUSO740 **Customer Equity Management**

Credits: 2 Grading Method: Regular

Prerequisite: BUSI650; or BUSM612; or BUSO612. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK722, BUMK750 or BUSO740.

This course focuses on managing customers of a business, whether in B2B or B2C space, as a portfolio of equity. It provides an understanding of the current and future value of customers to the business. Topics include selective acquisition, development, and retention of customers using latest developments in information technology.

SO51	Pallassana Kannan	Seats (Total: 32)
	Meets March 28, 2022 - May 12, 2022	
	W 8:45pm - 10:15pm	ONLINE
	Class time/details on ELMs	ONLINE
SO61	Pallassana Kannan	Seats (Total: 32)
	Meets March 28, 2022 - May 12, 2022	
	W 7:00pm - 8:30pm	ONLINE
	Class time/details on ELMs	ONLINE

BUSO752 Innovative Solutions to Supply Chain Challenges

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

This course is designed to provide you with practical challenges to implement innovative and effective actions to achieve the goalof enhanced supply chain operations. You will be challenged to function as a supply chain executive in charge of major decisions.The course is designed to be a mix of action-focused learning combined with some very recent and interesting examples of howcompanies are addressing their own supply chain challenges in innovative ways.

SO51	Martin Dresner	Seats (Total: 33)
	Meets March 28, 2022 - May 12, 2022	
	Th 8:45pm - 10:15pm	ONLINE
	Class time/details on ELMs	ONLINE
SO61	Martin Dresner	Seats (Total: 33)
	Meets March 28, 2022 - May 12, 2022	
	Th 7:00pm - 8:30pm	ONLINE
	Class time/details on ELMs	ONLINE

BUSO758D Special Topics in Business; Managing Global Business Risks and Opportunities

Credits: 4 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

GX01	Bennet Zelner **Meets January 24, 2022 - May 12, 2022** Contact instructor or department for details.	Seats (Total: 60)
GX02	Bennet Zelner **Meets January 24, 2022 - May 12, 2022** Contact instructor or department for details.	Seats (Total: 60)

BUSO758P **Special Topics in Business; Applied Equity Analysis**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

SO51	Joseph Perfetti **Meets March 28, 2022 - May 12, 2022** W 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE

BUSO781 **The Impact of Taxation on Business Entities**

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

Tax Strategies for Business Planning and Investment provides a study of how federal and state taxes affect business strategy. The course focuses on the taxation of business entities and transactions. Concepts of taxing jurisdictions, taxes as transaction costs, maxims of income tax planning and jurisdictional issues in taxation are reviewed with particular emphasis on their impact on business operations. The course examines the choice of business entity, examining the taxation of flow-through entities (partnerships, LLCs, and S corporations) and C corporations (separately taxed entities). The course also examines investment and personal financial planning.

SO51	Leslie Mostow, Eugene Cantor **Meets March 28, 2022 - May 12, 2022** Th 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE

CBMG Cell Biology & Molecular Genetics Spring 2022

CBMG688B **Special Topics in Cell Biology and Molecular Genetics; Responsible Conduct of Research for Advanced Scholars**

(Perm req)

Credits: 1 Grading Method: Regular

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

Restriction: permission of instructor. Responsible Conduct of Research, for individuals who have already completed at least one graduate course in RCR. Satisfies 4 year refresher requirement.

0101	Charles Delwiche	Seats (Total: 15)
	Meets January 24, 2022 - March 12, 2022	
	M 4:00pm - 6:00pm	BRB 3101

CBMG688G **Special Topics in Cell Biology and Molecular Genetics; Computational Virology**

Credits: 2 Grading Method: Regular, Audit

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

0101	Brian Pierce	Seats (Total: 15)
	Meets March 13, 2022 - May 10, 2022	
	MW 4:00pm - 5:50pm	MCB 2119

CBMG688I **Special Topics in Cell Biology and Molecular Genetics; Genetic Analysis**

Credits: 2 Grading Method: Regular, Audit

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

0101	Stephen Mount	Seats (Total: 30)
	Meets March 13, 2022 - May 10, 2022	
	TuTh 4:00pm - 6:00pm	MCB 2119

CBMG688U **Special Topics in Cell Biology and Molecular Genetics; Rigor and Reproducibility in Research**

Credits: 1 Grading Method: Regular

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

Experimental design, vouchering and validation, perils and pitfalls in statistical analysis, data management and archiving, and effective publication. Qualifies for BISI professional development requirement. Class meets in BRB 1301.

0101	Charles Delwiche	Seats (Total: 15)
	Meets March 14, 2022 - May 10, 2022	
	M 4:00pm - 6:00pm	Location: TBA

CBMG699 **Special Problems in Cell Biology and Molecular Genetics**

Credits: 1-3 Grading Method: Regular, Audit

Emphasis is placed on research and discussion of current problems in the area of Cell Biology and Molecular Genetics.

Contact department for information to register for this course.

CBMG699C **Special Problems in Cell Biology and Molecular Genetics; Cell Biology**

Credits: 3 Grading Method: Regular, Audit

Emphasis is placed on research and discussion of current problems in the area of Cell Biology and Molecular Genetics.

0101	Sougata Roy	Seats (Total: 8)
	TuTh 11:00am - 12:15pm	MCB 1207

CBMG699D **Special Problems in Cell Biology and Molecular Genetics; Molecular Genetics: Bioinformatics and Computation Biology**

Credits: 1 Grading Method: Regular, Audit

Emphasis is placed on research and discussion of current problems in the area of Cell Biology and Molecular Genetics.

0101	Stephen Mount	Seats (Total: 20)
	W 12:00pm - 1:00pm	BRB 1103

CBMG699W **Special Problems in Cell Biology and Molecular Genetics; Immunology**

Credits: 3 Grading Method: Regular

Emphasis is placed on research and discussion of current problems in the area of Cell Biology and Molecular Genetics.

0101	David Mosser, Kenneth Frauwirth MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 7) ESJ 1202 PLS 1113	 Discussion

CBMG699X **Special Problems in Cell Biology and Molecular Genetics; Host Pathogen Interactions**

Credits: 1 Grading Method: Regular, Audit

Emphasis is placed on research and discussion of current problems in the area of Cell Biology and Molecular Genetics.

0101	David Mosser F 9:00am - 10:30am	Seats (Total: 20) BRB 3101

CBMG799 **Masters Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Master's Thesis Research in Cell Biology and Molecular Genetics.

Contact department for information to register for this course.

CBMG898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Pre-candidacy Research.

Contact department for information to register for this course.

CBMG899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Doctoral Dissertation Research.

Contact department for information to register for this course.

CCJS Criminology and Criminal Justice Spring 2022

CCJS100 **Introduction to Criminal Justice**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB General Education: DSHS

Introduction to the administration of criminal justice in a democratic society, with emphasis on the theoretical and historical development of law enforcement. The principles of organization and administration for law enforcement; functions and specific activities; planning and research; public relations; personnel and training; inspection and control; direction; policy formulation.

0101	Justine Madoo MW 11:00am - 11:50am M 2:00pm - 2:50pm	Seats (Total: 30) LEF 2205 JMZ 0125	Discussion
0102	Justine Madoo MW 11:00am - 11:50am M 10:00am - 10:50am	Seats (Total: 30) LEF 2205 TWS 1106	Discussion
0103	Justine Madoo MW 11:00am - 11:50am M 12:00pm - 12:50pm	Seats (Total: 30) LEF 2205 KEY 0126	Discussion
0104	Justine Madoo MW 11:00am - 11:50am M 1:00pm - 1:50pm	Seats (Total: 30) LEF 2205 JMZ 0125	Discussion
0105	Justine Madoo MW 11:00am - 11:50am Tu 9:30am - 10:20am	Seats (Total: 30) LEF 2205 HBK 0105	Discussion
0106	Justine Madoo MW 11:00am - 11:50am Tu 11:00am - 11:50am	Seats (Total: 30) LEF 2205 JMZ 2123	Discussion
0107	Justine Madoo MW 11:00am - 11:50am Tu 12:30pm - 1:20pm	Seats (Total: 30) LEF 2205 SYM 0215	Discussion
0108	Justine Madoo MW 11:00am - 11:50am Tu 2:00pm - 2:50pm	Seats (Total: 30) LEF 2205 KEY 0126	Discussion
0201	Justine Madoo MW 10:00am - 10:50am W 11:00am - 11:50am	Seats (Total: 30) SKN 0200 TYD 2111	Discussion

0202	Justine Madoo MW 10:00am - 10:50am W 9:00am - 9:50am	Seats (Total: 30) SKN 0200 KEY 0126	Discussion
0203	Justine Madoo MW 10:00am - 10:50am W 1:00pm - 1:50pm	Seats (Total: 30) SKN 0200 TYD 2111	Discussion
0204	Justine Madoo MW 10:00am - 10:50am W 2:00pm - 2:50pm	Seats (Total: 30) SKN 0200 ASY 3215	Discussion
0205	Justine Madoo MW 10:00am - 10:50am Th 9:30am - 10:20am	Seats (Total: 30) SKN 0200 JMZ 0205	Discussion
0206	Justine Madoo MW 10:00am - 10:50am Th 11:00am - 11:50am	Seats (Total: 30) SKN 0200 LEF 0135	Discussion
0207	Justine Madoo MW 10:00am - 10:50am Th 12:30pm - 1:20pm	Seats (Total: 30) SKN 0200 TWS 0320	Discussion
0208	Justine Madoo MW 10:00am - 10:50am Th 2:00pm - 2:50pm	Seats (Total: 30) SKN 0200 PLS 1113	Discussion

CCJS105 **Introduction to Criminology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

Criminal behavior and the methods of its study; causation; typologies of criminal acts and offenders; punishment, correction and incapacitation; prevention of crime.

0101	Jessica Morabito MW 12:00pm - 12:50pm M 10:00am - 10:50am	Seats (Total: 30) LEF 2205 KEY 0100	Discussion

0102	Jessica Morabito MW 12:00pm - 12:50pm M 1:00pm - 1:50pm	Seats (Total: 30) LEF 2205 KEY 0116	Discussion
0103	Jessica Morabito MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 30) LEF 2205 LEF 1220	Discussion
0104	Jessica Morabito MW 12:00pm - 12:50pm M 2:00pm - 2:50pm	Seats (Total: 30) LEF 2205 JMZ 2123	Discussion
0105	Jessica Morabito MW 12:00pm - 12:50pm W 10:00am - 10:50am	Seats (Total: 30) LEF 2205 KEY 0126	Discussion
0106	Jessica Morabito MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 30) LEF 2205 JMZ 1122	Discussion
0107	Jessica Morabito MW 12:00pm - 12:50pm W 1:00pm - 1:50pm	Seats (Total: 30) LEF 2205 LEF 1201	Discussion
0108	Jessica Morabito MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 30) LEF 2205 KNI 1105	Discussion
0201	Kyle Dorsey TuTh 12:30pm - 1:20pm Tu 11:00am - 11:50am	Seats (Total: 30) LEF 2205 EGR 2116	Discussion
0202	Kyle Dorsey TuTh 12:30pm - 1:20pm Tu 9:30am - 10:20am	Seats (Total: 30) LEF 2205 JMZ 2207	Discussion
0203	Kyle Dorsey TuTh 12:30pm - 1:20pm Th 2:00pm - 2:50pm	Seats (Total: 30) LEF 2205 PLS 1119	Discussion

0204	Kyle Dorsey TuTh 12:30pm - 1:20pm Tu 3:00pm - 3:50pm	Seats (Total: 30) LEF 2205 JMP 1109	Discussion
0205	Kyle Dorsey TuTh 12:30pm - 1:20pm Th 9:30am - 10:20am	Seats (Total: 30) LEF 2205 PLS 1129	Discussion
0206	Kyle Dorsey TuTh 12:30pm - 1:20pm Th 11:00am - 11:50am	Seats (Total: 30) LEF 2205 HBK 0123	Discussion
0207	Kyle Dorsey TuTh 12:30pm - 1:20pm Th 3:00pm - 3:50pm	Seats (Total: 30) LEF 2205 EDU 3315	Discussion
0208	Kyle Dorsey TuTh 12:30pm - 1:20pm Tu 2:00pm - 2:50pm	Seats (Total: 30) LEF 2205 TYD 1118	Discussion

CCJS200 **Statistics for Criminology and Criminal Justice**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSAR

Prerequisite: CCJS100 or CCJS105; and 1 course with a minimum grade of C- from (STAT100, MATH107, MATH111, MATH120, MATH130, MATH135, MATH140). Restriction: Must be in Criminology and Criminal Justice program; or permission of BSOS-Criminology & Criminal Justice department. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201.

Introduction to descriptive and inferential statistics, graphical techniques, and the computer analysis of criminology and criminal justice data. Basic procedures of hypothesis testing, correlation and regression analysis, and the analysis of continuous and binary dependent variables. Emphasis upon the examination of research problems and issues in criminology and criminal justice.

0101	Sarah Tahamont TuTh 9:30am - 10:45am Th 3:00pm - 3:50pm	Seats (Total: 30) MMH 1400 HBK 0115	Discussion
0102	Sarah Tahamont TuTh 9:30am - 10:45am Th 2:00pm - 2:50pm	Seats (Total: 30) MMH 1400 EDU 3315	Discussion

0103	Sarah Tahamont TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 30) MMH 1400 EDU 3315	Discussion
0104	Sarah Tahamont TuTh 9:30am - 10:45am Th 1:00pm - 1:50pm	Seats (Total: 30) MMH 1400 LEF 0135	Discussion
0105	Sarah Tahamont TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 30) MMH 1400 KNI 1103	Discussion
0106	Sarah Tahamont TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 30) MMH 1400 KNI 1105	Discussion

CCJS225 **Responses to Violence**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DSSP, SCIS

Conflict is unfortunately resolved through violence in a number of settings. It ranges from interpersonal to international in its scope. This course investigates the strengths and weakness of a number of resolutions to reducing violence over the course of history using both state centered and informal control.

0201	Kyle Dorsey MW 2:00pm - 3:15pm	Seats (Total: 60) ASY 2309

CCJS230 **Criminal Law in Action**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS100.

Law as one of the methods of social control. Criminal law: its nature, sources and types; theories and historical developments. Behavioral and legal aspects of criminal acts. Classification and analysis of selected criminal offenses.

0101	Cortney Fisher TuTh 3:30pm - 4:45pm	Seats (Total: 100) TWS 0310

0201	Russell Hamill W 4:00pm - 6:30pm	Seats (Total: 100) TWS 0310

CCJS300 **Criminological and Criminal Justice Research Methods**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Prerequisite: CCJS100 and CCJS105; and (PSYC200, CCJS200, ECON321, BMGT230, or SOCY201).

Introduction to the formulation of research questions covering crime and justice, research designs, data collection, and interpretation and reporting in criminological and justice-system settings.

0101	Laure Brooks MWF 9:00am - 9:50am	Seats (Total: 48) LEF 2166
0201	Laure Brooks MWF 11:00am - 11:50am	Seats (Total: 48) LEF 2166
0301	Alan Lehman TuTh 11:00am - 12:15pm	Seats (Total: 60) TYD 1102
0401	Alan Lehman TuTh 12:30pm - 1:45pm	Seats (Total: 60) TYD 0102
ESG1	Thomas Alexander M 11:00am - 12:30pm Class time/details on ELMs *Restricted to CCJS students at Shady Grove.*	Seats (Total: 40) ONLINE ONLINE

CCJS301 **Fundamentals in Criminal Justice**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be enrolled at The Universities at Shady Grove; and must be in the Criminal Justice minor; or by permission of department; and must not be in the Criminology and Criminal Justice major.

Provides an overview of the three major components of the American criminal justice system: police, courts, and corrections. Each component will be explored in its development over time as well as various issues surrounding each component. This course will also cover important issues that are relevant to current debates including race, reentry, technology and crime, juvenile justice, and future directions for criminal justice.

ESG1	Cortney Fisher	Seats (Total: 40)	
	Class time/details on ELMs	ONLINE	
	Restricted to students at Shady Grove.		

CCJS318F **Special Topics in Criminology & Criminal Justice; Terrorism and Political Violence: Understanding Terrorism, Insurgency, and Civil Conflict**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics in various aspects of the field of criminology and criminal justice will be covered.

CCJS318F is cross-listed with BSST338B. Credit may only be earned for BSST338B or CCJS318F.

ESG1	Steve Sin	Seats (Total: 40)	
	M 9:30am - 12:00pm	BLD3 3206	
	Restricted to CCJS students at Shady Grove.		

CCJS320 **Introduction to Criminalistics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS100 and CCJS230.

An introduction to modern methods used in the detection, investigation and solution of crimes. Practical analysis of evidence in a crime laboratory, including fingerprints and other impressions, firearms ID and ballistics, hairs and fibers, document examination, and use of polygraph.

Students must pay a $53.00 lab fee.

0101	Thomas Mauriello	Seats (Total: 24)	
	Class time/details on ELMs M 10:00am - 12:00pm	ONLINE MMH 2401	Lab
0201	Thomas Mauriello	Seats (Total: 24)	
	Class time/details on ELMs M 1:00pm - 3:00pm	ONLINE MMH 2401	Lab
0301	Thomas Mauriello	Seats (Total: 24)	
	Class time/details on ELMs M 4:00pm - 6:00pm	ONLINE MMH 2401	Lab

CCJS325 **Slavery in the Twenty First Century: Combating Human Trafficking**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

The trafficking of human beings in its historical, legal, economic, political and social contexts. Scope of the global problem, different forms of human trafficking, and regional trends and practices. Roles of government, the international community and individual actors. Strategies to combat trafficking.

0101	Kyle Dorsey MW 3:30pm - 4:45pm	Seats (Total: 60) SQH 1119
0301	Jessica Morabito TuTh 11:00am - 12:15pm	Seats (Total: 60) SQH 1119
ESG1	Wendy Stickle W 9:30am - 12:00pm *Restricted to CCJS students at Shady Grove.*	Seats (Total: 40) BLD4 3321

CCJS332 **Major Transitions: From Undergraduate to Professional**

(Perm req)

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Criminology and Criminal Justice program; and sophomore standing or higher.

This course is designed to assist criminology and criminal justice students explore career opportunities. Topics will include: graduate school, law school, career opportunities in federal, state, local, and public agencies, resume writing, and internships.

0101	Erin Doolin W 12:00pm - 12:50pm	Seats (Total: 30) SQH 1103

CCJS340 **Policing**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS100.

Critical issues relating to policing. Topics include police discretion, role of police, use of force, misconduct, police research, administration, personnel, and etc.

0101	Laure Brooks MWF 10:00am - 10:50am	Seats (Total: 200) LEF 2205

0201	David Mitchell M 5:00pm - 7:30pm	Seats (Total: 60) TWS 1100
ESG1	Nicole Romeiser Tu 2:00pm - 3:15pm Class time/details on ELMs *Restricted to CCJS students at Shady Grove.*	Seats (Total: 40) BLD3 3220 ONLINE

CCJS342 **Corrections**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS100. Restriction: Must be in a major within the BSOS-Criminology & Criminal Justice department. Credit only granted for: CCJS342 or CCJS452.

Examination of the American correctional system. Identification of historical and contemporary themes, issues, and trends. Evaluation of correctional policies, practices and research.

0301	Jessica Morabito TuTh 12:30pm - 1:45pm	Seats (Total: 60) TWS 1100
0401	Jessica Morabito MW 2:00pm - 3:15pm	Seats (Total: 60) ASY 1213
ESG1	William Sollod Tu 3:30pm - 6:00pm *Restricted to CCJS students at Shady Grove.*	Seats (Total: 40) BLD3 3220

CCJS345 **Courts and Sentencing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS100. Restriction: Must be in a major within the BSOS-Criminology & Criminal Justice department.

Contemporary issues in the American court system such as prosecution, sentencing and punishment. Theoretical perspectives on courtroom decision-making integrated with empirical research. Courts and sentencing processes, including initial charging, pretrial detention and final sentencing outcomes. Innovations in courts and sentencing.

0101	Cortney Fisher TuTh 9:30am - 10:45am	Seats (Total: 60) ASY 2309

0301	Robert Stewart	Seats (Total: 60)
	MW 2:00pm - 3:15pm	SHM 2102

CCJS346 **Domestic Violence**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS100. Credit only granted for: CCJS346 or CCJS498Y. Formerly: CCJS498Y.

A thorough and critical examination of family violence. Topics include the historical background to family violence, methods of studying this serious issue, elder abuse, child abuse, the cultural factors involved in intimate partner violence, violence in same-sex relationships, and the criminal justice response to family violence. Although the course focuses on the American family, illustrations from other cultures are provided.

ESG1	Nicole Romeiser	Seats (Total: 40)
	Tu 11:00am - 1:30pm	BLD3 3220
	Restricted to CCJS students at Shady Grove.	

CCJS352 **Drugs and Crime**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS100.

An analysis of the role of criminal justice in the control of drug use and abuse.

ESG1	Alan Drew	Seats (Total: 40)
	F 12:30pm - 1:45pm Class time/details on ELMs	ONLINE ONLINE
	Registration is restricted to Criminology and Criminal Justice-Shady Grove majors and Biological Sciences - Shady Grove majors. Permission is required for all other students to enroll in courses at Shady Grove. Please email ccjsusg@umd.edu for permission.	

CCJS358B **Special Topics in Study Abroad III; Criminology in Scandanavia**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CCJS358G **Special Topics in Study Abroad III; History of the Mafia and Global Crime**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CCJS359 **Field Training in Criminology and Corrections**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Supervised field training in public or private social agencies. Group meetings, individual conferences and written program reports.

Prerequisites: CCJS 105 or CRIM 220; and CCJS 350 or CRIM 450; and permission of department. For majors only.

Contact department for information to register for this course.

CCJS360 **Victimology**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS105.

Overview of the history and theory of victimology. Analysis of victimization patterns with special emphasis on types of victims and crimes. The interaction between victims of crime and the criminal justice system with respect to the role of the victim and the services offered to the victim.

0101	Cortney Fisher	Seats (Total: 100)
	TuTh 5:00pm - 6:15pm	TWS 0310

CCJS370 **Race, Crime and Criminal Justice**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DVUP

Prerequisite: CCJS100.

Role and treatment of racial/ethnic minorities in the criminal justice system. Course will provide students with historical and theoretical framework for understanding this dynamic.

0101	Brooklynn Hitchens	Seats (Total: 65)
	TuTh 12:30pm - 1:45pm	TWS 0310

CCJS386 **Experiential Learning**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Restriction: Permission of BSOS-Criminology & Criminal Justice department; and junior standing or higher.

Contact department for information to register for this course.

CCJS398 **Law Enforcement Field Training**

(Perm req)

Credits: 1-6

Grading Method: Regular, Pass-Fail, Audit

Supervised, structured and focused field training in law enforcement agencies.

Prerequisite: junior standing. For majors only.

Contact department for information to register for this course.

CCJS399 **Independent Study in Criminology and Criminal Justice**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Integrated reading or research under direction and supervision of a faculty member.

Prerequisite: written consent of faculty under whose direction the study is to be performed, and at least twelve hours of CCJS credits.

Contact department for information to register for this course.

CCJS418A **Seminar in Criminology and Criminal Justice; Offender Re-entry**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

Prerequisite: CCJS100, CCJS105, and CCJS300.

0101	Justine Madoo	Seats (Total: 50)
	TuTh 9:30am - 10:45am	SQH 1119

CCJS418D **Seminar in Criminology and Criminal Justice; Evolving Legal Issues**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

Prerequisites: CCJS 100 and CCJS 230.

0101	David Salem	Seats (Total: 50)
	W 6:00pm - 8:30pm	TYD 1102

CCJS418E **Seminar in Criminology and Criminal Justice; Applications of Data Science in Criminology**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

Prerequisite: CCJS100, CCJS105, CCJS200, and CCJS300.

0101	Zubin Jelveh	Seats (Total: 50)
	TuTh 11:00am - 12:15pm	ONLINE

CCJS418F **Seminar in Criminology and Criminal Justice; Crime on TV**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

Prerequisite: CCJS100, CCJS105, and CCJS300.

0101	Robert Stewart	Seats (Total: 50)
	MW 3:30pm - 4:45pm	SHM 2102

CCJS418J **Seminar in Criminology and Criminal Justice; Immigration and Crime**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

ESG1	Alan Drew	Seats (Total: 40)
	Tu 9:30am - 12:00pm	BLD3 4212
	Restricted to CCJS students at Shady Grove.	

CCJS418P **Seminar in Criminology and Criminal Justice; Marijuana, Law and Society**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

Prerequisites: CCJS100 and CCJS105.

0101	Alan Lehman TuTh 2:00pm - 3:15pm	Seats (Total: 50) ARC 1103

CCJS418Q **Seminar in Criminology and Criminal Justice; Criminology and Criminal Justice: Crime and Place**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

Prerequisites: CCJS100, CCJS105, andCCJS 300

0101	Maria Velez MWF 11:00am - 11:50am	Seats (Total: 50) SQH 1120

CCJS450 **Advanced Juvenile Delinquency**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS105 and CCJS300. Credit only granted for: CCJS350 or CCJS450.

Examination of juvenile delinquency in the United States. Nature and extent of juvenile delinquency, historical approaches, sociological and criminological theories and research, social contexts including the institutions of families, schools, and peers, and social responses. Prevention, punishment, and treatment programs, both within and outside of the juvenile justice and criminal justice systems.

0101	Kathryn Kozey Class time/details on ELMs	Seats (Total: 50) ONLINE
0201	Justine Madoo TuTh 11:00am - 12:15pm	Seats (Total: 50) VMH 1203
ESG1	Carlotta Woodward M 12:30pm - 1:45pm Class time/details on ELMs *Restricted to CCJS students at Shady Grove.*	Seats (Total: 40) BLD3 2230 ONLINE

CCJS451 **Crime and Delinquency Prevention**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS105 and CCJS300.

Methods and programs in prevention of crime and delinquency.

0101	Kyle Dorsey TuTh 2:00pm - 3:15pm	Seats (Total: 50) ASY 2309
0201	Robert Brame MWF 12:00pm - 12:50pm	Seats (Total: 50) VMH 1203

CCJS454 **Contemporary Criminological Theory**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS300 and CCJS105.

Examination of the main theoretical accounts that explain the underlying causes of criminal behaviors. Explore how individual choices, socialization experiences, biological factors and social structure affect criminal behaviors.

0101	Wade Jacobsen MWF 10:00am - 10:50am	Seats (Total: 50) ARC 1101
0201	Wade Jacobsen MWF 9:00am - 9:50am	Seats (Total: 50) ARC 1101

CCJS461 **Psychology of Criminal Behavior**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS105 and CCJS300.

Biological, environmental, and personality factors which influence criminal behaviors. Biophysiology and crime, stress and crime, maladjustment patterns, psychoses, personality disorders, aggression and violent crime, sex-motivated crime and sexual deviations, alcohol and drug abuse, and criminal behavior.

Contact department for information to register for this course.

CCJS489H **Honors Thesis Research**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Designed for students completing their honors thesis.

0101	Bianca Bersani	Seats (Total: 20)
	Tu 4:00pm - 6:30pm	JMZ 1103

CCJS498F **Selected Topics in Criminology and Criminal Justice; Recruitment and Retention of Public Safety Professionals**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in criminology and criminal justice. Offered in response to student request and faculty interest.

ESG1	Kristina Hedgepeth	Seats (Total: 40)
	W 12:30pm - 1:45pm Class time/details on ELMs	BLD3 4211 ONLINE
	Restricted to CCJS students at Shady Grove.	

CCJS498O **Selected Topics in Criminology and Criminal Justice; Crossover Youth: The Intersection of the Child Welfare and Criminal Justice Systems**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in criminology and criminal justice. Offered in response to student request and faculty interest.

ESG1	Louis Morlier	Seats (Total: 40)
	W 6:30pm - 9:00pm	BLD3 2230
	Restricted to CCJS students at Shady Grove.	

CCJS498Q **Selected Topics in Criminology and Criminal Justice; Navigating Your Future: Transforming Your Degree into a Career**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in criminology and criminal justice. Offered in response to student request and faculty interest.

ESG1	Richard Harris	Seats (Total: 40)
	Th 12:30pm - 1:45pm Class time/details on ELMs	BLD3 3202 ONLINE
	Restricted to CCJS students at Shady Grove.	

CCJS498R **Selected Topics in Criminology and Criminal Justice; Woman and Crime**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in criminology and criminal justice. Offered in response to student request and faculty interest.

ESG1	Cortney Fisher	Seats (Total: 40)
	W 3:30pm - 6:00pm	BLD3 4216
	Restricted to CCJS students at Shady Grove.	

CCJS498Y **Selected Topics in Criminology and Criminal Justice; Rules of Engagement: Evidence in Criminal Trials**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in criminology and criminal justice. Offered in response to student request and faculty interest.

ESG1	James Trusty	Seats (Total: 40)
	Tu 6:30pm - 9:00pm	BLD3 3220
	Restricted to CCJS students at Shady Grove.	

CCJS601 **Policing**

Credits: 3 Grading Method: Regular, Sat-Fail

An introduction to research, theory, and applications of the causes and consequences of police behavior. Community policing, problem-solving methods, police discretion, police misconduct, police crime prevention strategies, and restorative justice.

0101	Rod Brunson	Seats (Total: 20)
	W 4:00pm - 6:45pm	LEF 2207

CCJS604 **Policy Analysis Project**

(Perm req)

Credits: 3 Grading Method: Regular

An application of statistical and conceptual tools to criminal justice data in the student's area of concentration, resulting in a paper reporting the conceptualization, analytic methods and results. The topic of the independent study will be chosen through individual consultation with the instructor.

Contact department for information to register for this course.

CCJS605 **Program Evaluation for Criminal Justice**

Credits: 3 Grading Method: Regular

Credit only granted for: CCJS605 or CCJS609. Formerly: CCJS609.

Designing, implementing and evaluating programs in criminal justice. Topics include diagnosing program needs, planning and tailoring evaluation programs, program monitoring, assessing program impact, program efficiency, and the social context of evaluation.

Contact department for information to register for this course.

CCJS610 **Research Methods in Criminal Justice and Criminology**

Credits: 3 Grading Method: Regular, Audit

Formerly: CRIM610.

Examination of special research problems and techniques.

0101	Min Xie	Seats (Total: 23)
	Tu 4:00pm - 6:45pm	LEF 2165E

CCJS611 **Statistical Tools for Criminal Justice**

Credits: 3 Grading Method: Regular

An introduction to essential statistical concepts for analyzing crime and evaluating criminal justice policies. Interpreting crime trends and correlations, risk and conditional probability analysis for repeat offenders and hot spots of crime, time series analysis, experimental statistics, effect sizes, statistical power and significance.

Contact department for information to register for this course.

CCJS615 **Criminal Procedure Law**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: CCJS678E or CCJS615. Formerly: CCJS678E.

This course is intended to introduce students to basic issues in China's criminal procedure law.

Contact department for information to register for this course.

CCJS616 **International Law and Process**

Credits: 3 Grading Method: Regular, Audit

Restriction: Students in the CCJS Masters program in China. Credit only granted for: CCJS616 or CCJS678D. Formerly: CCJS678D.

International law in globalized world and its functions.

CH01	Mengxue Li, Michael Dravis	Seats (Total: 35)
	Contact instructor or department for details.	

CCJS621 **General Linear Models in Criminal Justice Research**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: CCJS620. Credit only granted for: CCJS498F or CCJS621. Formerly: CCJS498F.

An in-depth exploration of applied linear regression analysis. Covers characteristics of estimates, such as unbiasedness and efficiency. Encourages fluency with the theoretical issues involved in the basic linear regression using simple algebra, familiarity with the general model using matrix algebra, and fluency with the computer application of multivariate regressions and the probit/logit models.

0101	Greg Midgette	Seats (Total: 25)
	M 4:20pm - 7:05pm	LEF 2166

CCJS633 **Translating Research into Practice**

Credits: 3 Grading Method: Regular

Prerequisite: CCJS632. Restriction: Permission of BSOS-Criminology & Criminal Justice department.

Law enforcement policy and practice is increasingly "evidence based." This course will focus on understanding data sources and the fundamentals of research methodology, focusing on how data and methodological choices shape the conclusions that can be drawn. At the end of this course, students will be able to discern between research of good and poor quality and understand the crucial benefits of evaluation.

PLL1	Jean McGloin	Seats (Total: 50)
	Class time/details on ELMs	ONLINE
	Must be in Graduate Programs in Public Safety Leadership and Administration or a graduate student in a Semester Academic Calendar program.	

CCJS651 **Seminar in Criminology**

Credits: 3 Grading Method: Regular, Audit

Formerly: CRIM651.

Analysis of significant recent issues in Criminology.

0101	Maria Velez W 3:00pm - 5:45pm	Seats (Total: 25) LEF 2165E

CCJS652 **Seminar in Juvenile Delinquency**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Formerly: CRIM652.

Analysis of delinquency and its control.

0101	Robert Brame Tu 4:00pm - 6:45pm	Seats (Total: 20) LEF 2207

CCJS658 **Civil Legal Issues in Policing**

Credits: 3 Grading Method: Regular

Provides a historical and legal understanding of police practices and what constitutes police misconduct. Students will also evaluate proposals aimed at reforming police departments across the United States and will grapple with many of the civil legal obstacles that have prevented such reforms to take effect.

PLL1	Michael Greenberger Class time/details on ELMs F 6:00pm - 8:00pm	Seats (Total: 20) ONLINE ONLINE
	Must be in Graduate Programs in Public Safety Leadership and Administration or a graduate student in a Semester Academic Calendar program.	

CCJS661 **Crime and the Life Course**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: CCJS699J or CCJS661. Formerly: CCJS699J.

Designed to provide an intensive examination of crime and the life course. Life course is examined as a theoretical orientation, a research methodology, and an empirical field of study with special reference to crime and deviance. Course includes development of criminal behavior and criminal careers; stability and change in criminal behavior across developmental stages; trajectories, transitions, and turning points through life; quantitative and qualitative approaches to studying crime and the life course; and social change and its link to individual lives.

0101	Bianca Bersani M 3:00pm - 5:45pm	Seats (Total: 20) LEF 2165E

CCJS699 **Special Criminological Problems**

Credits: 1-3 Grading Method: Regular, Audit

Supervised study of a selected problem in the field of criminal justice.

Contact department for information to register for this course.

CCJS700 **Advanced Research Methods in Criminology and Criminal Justice**

Credits: 3 Grading Method: Regular

Prerequisite: CCJS610.

An in-depth inventory of the methods of criminological research. It considers the philosophy of science and research ethics; discusses sampling, measurement and methods of data collection, including survey, experimental, evaluation, and qualitative research.

0101	Lauren Porter Th 3:00pm - 5:45pm	Seats (Total: 20) LEF 2165E

CCJS799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CCJS898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

CCJS899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Doctoral dissertation research in criminal justice and criminology.

Contact department for information to register for this course.

CHBE Chemical and Biomolecular Engineering Spring 2022

CHBE101 **Introduction to Chemical and Biomolecular Engineering**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM135; or students who have taken courses with comparable content may contact the department. Corequisite: MATH141. Restriction: Must be in Engineering: Chemical program; or permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE101 or ENCH215. Formerly: ENCH215.

Introduction to methods of chemical engineering calculations and analysis. Stoichiometric relations, material and energy balances, and behavior of gases, vapors, liquids and solids. Analytical and computer methods.

0101	Taylor Woehl	Seats (Total: 120)	
	MWF 12:00pm - 12:50pm	JMP 3201	
	F 1:00pm - 1:50pm	CHE 2136	Discussion

CHBE302 **Chemical and Biomolecular Engineering Thermodynamics II**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHBE301. Corequisite: CHBE250. Restriction: Must be in a major within ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE302 or ENCH400. Formerly: ENCH400.

Contemporary trends in chemical engineering thermodynamics that bridge the gap between fundamentals and applications. Thermodynamic analysis of non-ideal and structured systems; such as complex fluids, strongly fluctuating and nanoscale systems, dissipative systems, biosystems, and systems under extreme conditions.

0101	Jeffery Klauda	Seats (Total: 80)	
	TuTh 9:30am - 10:45am	ATL 1113	
	F 10:00am - 10:50am	ATL 2400	Discussion

CHBE333 **Chemical Engineering Seminar**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Restriction: Junior standing; and must be in a major within ENGR-Chemical & Biomolecular Engineering department; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE333 or ENCH333. Formerly: ENCH333.

To develop oral communication skills through a series of class presentations of current chemical engineering topics.

0101	Akua Asa-Awuku W 2:00pm - 2:50pm	Seats (Total: 15) EGR 3114	
0102	Akua Asa-Awuku W 11:00am - 11:50am	Seats (Total: 15) EGR 1110	

CHBE369 **Teaching Experiences in Chemical Engineering**

(Perm req)

Credits: 1-2 Grading Method: Regular, Pass-Fail, Audit

Students will obtain pedagogical experience by assisting with the teaching of undergraduate courses in Chemical and Biomolecular Engineering.

Contact department for information to register for this course.

CHBE422 **Chemical and Biomolecular Engineering Transport Phenomena I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHBE101, CHBE250, MATH241, and MATH246. Restriction: Must be in a major within the ENGR-Chemical & Biomolecular Engineering department; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE422 or ENCH422. Formerly: ENCH422.

Principals of fluid dynamics as applied to model development and process design. Mass, momentum and energy conservation. Statics and surface tension. Equation of Continuity and Navier-Stokes Equation with application to laminar flow. Dimensional analysis. Macroscopic balances, Bernoulli Equation and friction factors with application to turbulent flow.

0101	Paul Albertus TuTh 2:00pm - 3:15pm M 10:00am - 10:50am	Seats (Total: 30) ANS 0402 EGR 2116	 Discussion

CHBE424 **Chemical and Biomolecular Engineering Transport Phenomena II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHBE422. Corequisite: CHBE302. Restriction: Must be in Engineering: Chemical program; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE424 or ENCH424. Formerly: ENCH424.

Principles of mass and heat transfer as applied to model development and process design. Species continuity equation with application to diffusion, and convection in laminar flow. Macroscopic balances and mass transfer coefficients with application to turbulent flow. Microscopic equation of energy with application to heat conduction, and convection in laminar flow. Macroscopic energy balance and heat transfer coefficients with application to turbulent flow. Heat exchanger design.

0101	Deborah Goldberg TuTh 12:30pm - 1:45pm F 11:00am - 11:50am	Seats (Total: 120) CHE 2110 CHM 1402	 Discussion

CHBE426 **Chemical and Biomolecular Separation Processes**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Corequisite: CHBE302; and CHBE424. Restriction: Must be in Engineering: Chemical program; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE426 or ENCH426. Formerly: ENCH426.

Separation by stages operations. Rate dependent separation processes. Design application in distillation, gas absorption, liquid extraction, drying, adsorption and ion exhange.

0101	Po-Yen Chen MWF 9:00am - 9:50am W 1:00pm - 1:50pm	Seats (Total: 50) CHE 2110 PHY 4221	 Discussion
0102	Po-Yen Chen MWF 9:00am - 9:50am W 10:00am - 10:50am	Seats (Total: 50) CHE 2110 CHM 2201	 Discussion

CHBE440 **Chemical Kinetics and Reactor Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHBE301, MATH241, and MATH246. Restriction: Must be in Engineering: Chemical program; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE440 or ENCH440. Formerly: ENCH440.

Fundamentals of chemical reaction kinetics and their application to the design and operation of chemical reactors. Reaction rate theory, homogeneous reactions and catalysis electrochemical reactions. Catalytic reactor design.

0101	Chen Zhang	Seats (Total: 40)	
	TuTh 3:30pm - 4:45pm M 11:00am - 11:50am	PHY 2208 CHE 2136	Discussion

CHBE446 **Process Engineering Economics and Design II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHBE442 and CHBE444. Restriction: Must be in a major within the ENGR-Chemical & Biomolecular Engineering department; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE446 or ENCH446. Formerly: ENCH446.

Application of chemical engineering principles for the design of chemical processing equipment. Representative problems in the design of chemical plants will be the focus of this capstone design class. Comprehensive reports are required.

0103	Nam Sun Wang	Seats (Total: 80)	
	M 2:00pm - 4:30pm	CHE 2108	

CHBE457 **Design and Processing of Polymers for Biomedical Devices**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: MATH246; and CHEM231; and (CHBE301, ENMA461, or BIOE232). Recommended: Knowledge of basic fluid dynamics: CHBE422/BIOE331 or equivalent. Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: BIOE453, CHBE457, or ENMA425.

An overview of the design and processing of polymers used in medical applications. Following a discussion of the physical and mechanical properties of polymers, important classes of polymeric biomaterials will be surveyed, discussing material synthesis, processing techniques and equipment, as well as properties and performance in biomedical applications. Topics will include silicone elastomers, hydrogels, ultra-high molecular weight polyethylene, polyurethanes, polyureas, polyesters, degradable and resorbable polymeric biomaterial designs used in surgery and drug delivery, polymers for ophthalmologic and orthopedic applications, and biopolymers such as silks and collagen. Finally, the design of major industrial polymer processing equipment will be covered, and the fundamentals of extrusion, calendering, coating, fiber spinning, film blowing, and injection molding processes will be presented.

0101	Peter Kofinas	Seats (Total: 30)	
	TuTh 2:00pm - 3:15pm	CSI 2118	

CHBE468 **Research**

(Perm req)

Credits: 1-3 Grading Method: Regular

Investigation of a research project under the direction of a faculty member. Comprehensive reports are required.

Contact department for information to register for this course.

CHBE469 **Special Projects**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Special project under the direction of a faculty member. Comprehensive reports are required.

Contact department for information to register for this course.

CHBE473 **Electrochemical Energy Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Jointly offered with: CHBE673. Credit only granted for: ENCH468K, CHBE473 or CHBE673. Formerly: ENCH468K.

The lecture will start from the basic electrochemical thermodynamics and kinetics, with emphasis on electrochemical techniques, fundamental principle and performance of batteries, and supercapacitors.

0101	Chunsheng Wang	Seats (Total: 35)
	MW 11:00am - 12:15pm	JMP 2121

CHBE474 **Biopharmaceutical Process Development and Manufacturing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BIOE120; and permission of instructor. Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Jointly offered with: CHBE674. Credit only granted for: CHBE474, BIOE489T, ENCH648D or CHBE674.

Covers the fundamental steps involved in process development and manufacturing of biopharmaceuticals. An overview of different classes of biopharmaceuticals as well as manufacturing requirements for clinical development and regulatory approval will be provided. In depth coverage of manufacturing steps including cell culture, purification and formulation as well as drug product manufacturing, analysis and stability will be covered. Scientific literature will be used to highlight current challenges and novel solutions in each step of the manufacturing process. Scale up considerations, GMP requirements and process economics will also be introduced.

0101	Deborah Goldberg	Seats (Total: 25)
	MW 12:30pm - 1:45pm	AJC 2119

CHBE477 **Mesoscopic and Nanoscale Thermodynamics**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: A prior course in classical thermodynamics. Restriction: Must be in a major within the ENGR-Chemical & Biomolecular Engineering department; and permission of ENGR-Chemical & Biomolecular Engineering department. Jointly offered with: CHBE477. Credit only granted for: CHBE477, ENCH468Q or CHBE677. Formerly: ENCH468Q.

Interdisciplinary course primarily for graduate and senior undergraduate students from engineering or science departments. New emerging technologies deal with bio-membrane and gene engineering, microreactor chemistry and microcapsule drug delivery, micro-fluids and porous media, nanoparticles and nanostructures, supercritical fluid extraction and artifical organs. Engineers often design processes where classical thermodynamics may be insufficient, e.g., strongly fluctuating and nanoscale systems, or dissipative systems under conditions far away from equilibrium.

0101	Mikhail Anisimov	Seats (Total: 38)
	TuTh 12:30pm - 1:45pm	JMP 1202

CHBE480 **Bionanotechnology: Physical Principles**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BIOE120; or students who have taken courses with comparable content may contact the department. Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Jointly offered with: CHBE680. Credit only granted for: ENCH648N, CHBE480 or CHBE680.

Physics at nano/micro scales. Biomolecular building blocks. Simplest biomolecular assembly: protein folding. Nanoscale intermolecular interactions important for biology. Protein-ligand binding. Protein higher-order assembly: filaments, networks. Protein filaments and motility. DNA, RNA and their assembly assisted by proteins. Viral capsid assembly. Lipid assembly into micelles, bilayers. Lipid-protein co-assembly in membranes. Lipid and polymer structures useful in medicine. Targeted delivery of drugs, genes by nano/micro structures. Cellular assembly in the eye, in insect wings. Cellular assembly at surfaces: gecko feet, duck feathers. Cellular assembly in the presence of crystals: biomineralization.

0101	Srinivasa Raghavan	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	CHE 2110

CHBE490 **Polymer Science**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: CHBE490, ENCH490, or ENMA495. Formerly: ENCH490.

The elements of the polymer chemistry and industrial polymerization, polymer structures and physics, thermodynamics of polymer solutions, polymer processing methods, and engineering applications of polymers.

0101	Kyu Yong Choi	Seats (Total: 30)
	MW 5:00pm - 6:15pm	CHE 2118

CHBE497 **Protein Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BIOE120, CHBE302, and CHBE440; and permission of instructor. Jointly offered with: CHBE697. Credit only granted for: CHBE497, BIOE489R, ENCH 648P or CHBE697.

This course will cover the fundamentals of protein engineering and its applications in medicine, chemical processes, and energy. Topics will include the structure and function of biological molecules, rational design and directed evolution, construction of protein and peptide libraries, protein screening platforms, methods for characterizing structure and function of biological molecules. Scientific literature will be used to highlight key discoveries and current work in protein engineering.

0101	Amy Karlsson	Seats (Total: 30)
	TuTh 5:00pm - 6:15pm	CHM 1224

CHEM Chemistry Spring 2022

CHEM131 **Chemistry I - Fundamentals of General Chemistry**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSNL (if taken with CHEM132), DSNS

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: CHEM132. Recommended: For Science majors. Credit only granted for: CHEM103, CHEM131, CHEM135, CHEM153 or CHEM146. Formerly: CHEM103.

An overview of the Periodic Table, inorganic substances, ionic and covalent bonding, bulk properties of materials, chemical equilibrium, and quantitative chemistry. CHEM131 is the first course in a four-semester sequence for students majoring in the sciences, other than Chemistry and Biochemistry majors.

1115	Michael Pacella	Seats (Total: 36)	
	TuTh 8:00am - 9:15am	CHM 1407	
	M 12:00pm - 12:50pm	PHY 2122	Discussion

1116	Michael Pacella TuTh 8:00am - 9:15am M 1:00pm - 1:50pm	Seats (Total: 36) CHM 1407 PHY 2122	Discussion
1117	Michael Pacella TuTh 8:00am - 9:15am M 2:00pm - 2:50pm	Seats (Total: 36) CHM 1407 PHY 2122	Discussion
1135	Michael Pacella TuTh 8:00am - 9:15am W 12:00pm - 12:50pm	Seats (Total: 36) CHM 1407 PHY 2122	Discussion
1136	Michael Pacella TuTh 8:00am - 9:15am W 1:00pm - 1:50pm	Seats (Total: 36) CHM 1407 PHY 2122	Discussion
1138	Michael Pacella TuTh 8:00am - 9:15am W 2:00pm - 2:50pm	Seats (Total: 36) CHM 1407 PHY 2122	Discussion
1214	Christiana Guest TuTh 11:00am - 12:15pm M 10:00am - 10:50am	Seats (Total: 36) CHM 1407 PHY 2213	Discussion
1215	Christiana Guest TuTh 11:00am - 12:15pm M 11:00am - 11:50am	Seats (Total: 36) CHM 1407 PHY 2213	Discussion
1216	Christiana Guest TuTh 11:00am - 12:15pm M 12:00pm - 12:50pm	Seats (Total: 36) CHM 1407 PHY 2213	Discussion
1234	Christiana Guest TuTh 11:00am - 12:15pm W 10:00am - 10:50am	Seats (Total: 36) CHM 1407 PHY 2213	Discussion
1235	Christiana Guest TuTh 11:00am - 12:15pm W 11:00am - 11:50am	Seats (Total: 36) CHM 1407 PHY 2213	Discussion

1236	Christiana Guest TuTh 11:00am - 12:15pm W 12:00pm - 12:50pm	Seats (Total: 36) CHM 1407 PHY 2213	Discussion
1314	Amanda Schech TuTh 12:30pm - 1:45pm M 11:00am - 11:50am	Seats (Total: 36) CHM 1407 PHY 2214	Discussion
1315	Amanda Schech TuTh 12:30pm - 1:45pm M 12:00pm - 12:50pm	Seats (Total: 36) CHM 1407 PHY 2214	Discussion
1317	Amanda Schech TuTh 12:30pm - 1:45pm M 2:00pm - 2:50pm	Seats (Total: 36) CHM 1407 PHY 2214	Discussion
1334	Amanda Schech TuTh 12:30pm - 1:45pm W 11:00am - 11:50am	Seats (Total: 36) CHM 1407 PHY 2214	Discussion
1335	Amanda Schech TuTh 12:30pm - 1:45pm W 12:00pm - 12:50pm	Seats (Total: 36) CHM 1407 PHY 2214	Discussion
1337	Amanda Schech TuTh 12:30pm - 1:45pm W 2:00pm - 2:50pm	Seats (Total: 36) CHM 1407 PHY 2214	Discussion
SES1	Amanda Schech M 6:30pm - 9:30pm W 6:30pm - 7:20pm *Restricted to students in the SIE Program. Click here for more information.*	Seats (Total: 20) ESJ 2309 ESJ B0322	Discussion

CHEM132 **General Chemistry I Laboratory**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: CHEM131. Credit only granted for: CHEM103, CHEM132, CHEM136, CHEM143, CHEM147 or CHEM177. Formerly: CHEM103.

Introduction to the quantification of chemical substances, including the concept of the mole and chemical stoichiometry. Additional work involves the synthesis of ionic substances and their qualitative characterization. Must be taken concurrently with CHEM131.

Laboratory sessions will begin after the first lecture. Students must pay a $40.00 lab materials fee.

1111	Christiana Guest M 9:00am - 11:50am	Seats (Total: 24) ESJ 1312	Lab
1121	Christiana Guest M 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1312	Lab
1131	Christiana Guest M 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1312	Lab
1132	Christiana Guest M 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1316	Lab
1211	Christiana Guest Tu 9:30am - 12:20pm	Seats (Total: 24) ESJ 1312	Lab
1212	Christiana Guest Tu 9:30am - 12:20pm	Seats (Total: 24) ESJ 1316	Lab
1221	Christiana Guest Tu 12:30pm - 3:20pm	Seats (Total: 24) ESJ 1312	Lab
1231	Christiana Guest Tu 3:30pm - 6:20pm	Seats (Total: 24) ESJ 1312	Lab
1232	Christiana Guest Tu 3:30pm - 6:20pm	Seats (Total: 24) ESJ 1316	Lab
1321	Christiana Guest W 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1312	Lab
1322	Christiana Guest W 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1316	Lab
1331	Christiana Guest W 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1312	Lab

1332	Christiana Guest W 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1316	Lab
1411	Christiana Guest Th 9:30am - 12:20pm	Seats (Total: 24) ESJ 1312	Lab
1421	Christiana Guest Th 12:30pm - 3:20pm	Seats (Total: 24) ESJ 1312	Lab
1422	Christiana Guest Th 12:30pm - 3:20pm	Seats (Total: 24) ESJ 1316	Lab
1431	Christiana Guest Th 3:30pm - 6:20pm	Seats (Total: 24) ESJ 1312	Lab
1432	Christiana Guest Th 3:30pm - 6:20pm	Seats (Total: 24) ESJ 1316	Lab
1521	Christiana Guest F 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1312	Lab
1522	Christiana Guest F 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1316	Lab
1524	Christiana Guest F 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1330	Lab
1531	Christiana Guest F 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1312	Lab
1532	Christiana Guest F 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1316	Lab
SES1	Christiana Guest W 7:30pm - 10:20pm *Restricted to students in the SIE Program. Click here for more information.*	Seats (Total: 20) ESJ 1330	Lab

CHEM134 **Chemical Principles for Engineering**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CHEM131; or minimum grade of C- in CHEM146. Credit only granted for: CHEM 134 or CHEM 135.

Basic chemistry for engineering students. Introduction to organic structures and polymers, gas laws, liquids, solids, phase changes, chemical kinetics and electrochemistry.

0101	Amanda Souna Tu 3:30pm - 4:20pm	Seats (Total: 132) CHM 1402	

CHEM135 **General Chemistry for Engineers**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Must have math eligibility of MATH120 or higher. Credit only granted for: CHEM103, CHEM113, CHEM131, CHEM135, or CHEM146.

The nature and composition of matter, solutions, chemical reactions, equilibria, and electrochemistry, with applications to various fields of engineering.

3125	Michael Pacella MWF 3:00pm - 3:50pm Tu 12:30pm - 1:20pm	Seats (Total: 33) CHM 1407 PHY 2106	Discussion
3127	Michael Pacella MWF 3:00pm - 3:50pm Tu 2:00pm - 2:50pm	Seats (Total: 33) CHM 1407 PHY 2106	Discussion
3128	Michael Pacella MWF 3:00pm - 3:50pm Tu 3:30pm - 4:20pm	Seats (Total: 33) CHM 1407 PHY 2106	Discussion
3145	Michael Pacella MWF 3:00pm - 3:50pm Th 11:00am - 11:50am	Seats (Total: 33) CHM 1407 PHY 2106	Discussion
3147	Michael Pacella MWF 3:00pm - 3:50pm Th 2:00pm - 2:50pm	Seats (Total: 33) CHM 1407 PHY 2106	Discussion
3148	Michael Pacella MWF 3:00pm - 3:50pm Th 3:30pm - 4:20pm	Seats (Total: 33) CHM 1407 PHY 2106	Discussion

CHEM136 **General Chemistry Laboratory for Engineers**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: Must have completed or be concurrently enrolled in CHEM135 and must have math eligibility of MATH120 or higher. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering.

A laboratory course for engineering majors intending to take CHEM231 and CHEM232.

1135	Natalia White M 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1330	Lab
1225	Natalia White Tu 12:30pm - 3:20pm	Seats (Total: 24) ESJ 1330	Lab

CHEM231 **Organic Chemistry I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM131, CHEM135, or CHEM146; and (CHEM132, CHEM136, CHEM147, or CHEM177); and a grade of C- or better in the prerequisites is required of College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM232. Credit only granted for: CHEM104, CHEM231, CHEM233 or CHEM237. Formerly: CHEM233.

The chemistry of carbon: aliphatic compounds, aromatic compounds, stereochemistry, arenes, halides, alcohols, esters and spectroscopy.

5116	Lenea Stocker TuTh 2:00pm - 3:15pm M 1:00pm - 1:50pm	Seats (Total: 36) CHM 1407 PHY 2213	Discussion
5117	Lenea Stocker TuTh 2:00pm - 3:15pm M 2:00pm - 2:50pm	Seats (Total: 36) CHM 1407 PHY 2213	Discussion
5118	Lenea Stocker TuTh 2:00pm - 3:15pm M 3:00pm - 3:50pm	Seats (Total: 36) CHM 1407 PHY 2213	Discussion
5136	Lenea Stocker TuTh 2:00pm - 3:15pm W 1:00pm - 1:50pm	Seats (Total: 36) CHM 1407 PHY 2213	Discussion

5137	Lenea Stocker TuTh 2:00pm - 3:15pm W 2:00pm - 2:50pm	Seats (Total: 36) CHM 1407 PHY 2213	Discussion
5138	Lenea Stocker TuTh 2:00pm - 3:15pm W 3:00pm - 3:50pm	Seats (Total: 36) CHM 1407 PHY 2213	Discussion
5322	Monique Koppel MWF 10:00am - 10:50am Tu 12:30pm - 1:20pm	Seats (Total: 36) CHM 1407 PHY 2214	Discussion
5325	Monique Koppel MWF 10:00am - 10:50am Tu 2:00pm - 2:50pm	Seats (Total: 36) CHM 1407 PHY 2214	Discussion
5328	Monique Koppel MWF 10:00am - 10:50am Tu 3:30pm - 4:20pm	Seats (Total: 36) CHM 1407 PHY 2214	Discussion
5342	Monique Koppel MWF 10:00am - 10:50am Th 12:30pm - 1:20pm	Seats (Total: 36) CHM 1407 PHY 2214	Discussion
5345	Monique Koppel MWF 10:00am - 10:50am Th 2:00pm - 2:50pm	Seats (Total: 36) CHM 1407 PHY 2214	Discussion
5348	Monique Koppel MWF 10:00am - 10:50am Th 3:30pm - 4:20pm	Seats (Total: 36) CHM 1407 PHY 2214	Discussion
5421	Lenea Stocker MWF 1:00pm - 1:50pm Tu 12:30pm - 1:20pm	Seats (Total: 36) CHM 1407 CHM 1224	Discussion
5427	Lenea Stocker MWF 1:00pm - 1:50pm Tu 2:00pm - 2:50pm	Seats (Total: 36) CHM 1407 CHM 1224	Discussion

5428	Lenea Stocker MWF 1:00pm - 1:50pm Tu 3:30pm - 4:20pm	Seats (Total: 36) CHM 1407 CHM 1224	 Discussion
5441	Lenea Stocker MWF 1:00pm - 1:50pm Th 12:30pm - 1:20pm	Seats (Total: 36) CHM 1407 CHM 1224	 Discussion
5447	Lenea Stocker MWF 1:00pm - 1:50pm Th 2:00pm - 2:50pm	Seats (Total: 36) CHM 1407 CHM 1224	 Discussion
5448	Lenea Stocker MWF 1:00pm - 1:50pm Th 3:30pm - 4:20pm	Seats (Total: 36) CHM 1407 CHM 1224	 Discussion
5511	Lee Friedman TuTh 8:00am - 9:15am M 8:00am - 8:50am	Seats (Total: 36) PHY 1412 CHM 1224	 Discussion
5512	Lee Friedman TuTh 8:00am - 9:15am M 9:00am - 9:50am	Seats (Total: 36) PHY 1412 CHM 1224	 Discussion
5513	Lee Friedman TuTh 8:00am - 9:15am M 10:00am - 10:50am	Seats (Total: 36) PHY 1412 CHM 1224	 Discussion
5531	Lee Friedman TuTh 8:00am - 9:15am W 8:00am - 8:50am	Seats (Total: 36) PHY 1412 CHM 1224	 Discussion
5532	Lee Friedman TuTh 8:00am - 9:15am W 9:00am - 9:50am	Seats (Total: 36) PHY 1412 CHM 1224	 Discussion
5533	Lee Friedman TuTh 8:00am - 9:15am W 10:00am - 10:50am	Seats (Total: 36) PHY 1412 CHM 1224	 Discussion

SES1	Monique Koppel M 6:30pm - 9:30pm W 6:30pm - 7:20pm	Seats (Total: 30) PHY 1201 PHY 1201	 Discussion
	Restricted to students in the SIE Program. Click here for more information.		

CHEM232 **Organic Chemistry Laboratory I**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: CHEM131 and CHEM132; or (CHEM135 and CHEM136); or (CHEM146 and CHEM147). And a grade of C- or better in the prerequisites is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM231. Credit only granted for: CHEM104, CHEM231, CHEM233 or CHEM237. Formerly: CHEM233.

Provides experience in developing some basic laboratory techniques, recrystallization, distillation, extraction, chromatography.

Students must pay a $40.00 lab materials fee.

5121	Monique Koppel M 12:00pm - 2:50pm	Seats (Total: 18) CHM 1342	 Lab
5122	Monique Koppel M 12:00pm - 2:50pm	Seats (Total: 18) CHM 1346	 Lab
5123	Monique Koppel M 12:00pm - 2:50pm	Seats (Total: 18) CHM 1356	 Lab
5131	Monique Koppel M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1356	 Lab
5132	Monique Koppel M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1346	 Lab
5134	Monique Koppel M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1360	 Lab
5141	Monique Koppel M 6:00pm - 8:50pm	Seats (Total: 18) CHM 1342	 Lab
5142	Monique Koppel M 6:00pm - 8:50pm	Seats (Total: 18) CHM 1346	 Lab

5143	Monique Koppel M 6:00pm - 8:50pm	Seats (Total: 18) CHM 1356	Lab
5144	Monique Koppel M 6:00pm - 8:50pm	Seats (Total: 18) CHM 1360	Lab
5221	Monique Koppel Tu 12:30pm - 3:20pm	Seats (Total: 18) CHM 1342	Lab
5222	Monique Koppel Tu 12:30pm - 3:20pm	Seats (Total: 18) CHM 1346	Lab
5223	Monique Koppel Tu 12:30pm - 3:20pm	Seats (Total: 18) CHM 1356	Lab
5232	Monique Koppel Tu 3:30pm - 6:20pm	Seats (Total: 18) CHM 1346	Lab
5233	Monique Koppel Tu 3:30pm - 6:20pm	Seats (Total: 18) CHM 1356	Lab
5241	Monique Koppel Tu 6:30pm - 9:20pm	Seats (Total: 18) CHM 1342	Lab
5242	Monique Koppel Tu 6:30pm - 9:20pm	Seats (Total: 18) CHM 1346	Lab
5243	Monique Koppel Tu 6:30pm - 9:20pm	Seats (Total: 18) CHM 1356	Lab
5321	Monique Koppel W 12:00pm - 2:50pm	Seats (Total: 18) CHM 1342	Lab
5322	Monique Koppel W 12:00pm - 2:50pm	Seats (Total: 18) CHM 1346	Lab
5323	Monique Koppel W 12:00pm - 2:50pm	Seats (Total: 18) CHM 1356	Lab
5331	Monique Koppel W 3:00pm - 5:50pm	Seats (Total: 18) CHM 1342	Lab

5332	Monique Koppel W 3:00pm - 5:50pm	Seats (Total: 18) CHM 1346	Lab
5333	Monique Koppel W 3:00pm - 5:50pm	Seats (Total: 18) CHM 1356	Lab
5343	Monique Koppel W 6:00pm - 8:50pm	Seats (Total: 18) CHM 1356	Lab
5421	Monique Koppel Th 12:30pm - 3:20pm	Seats (Total: 18) CHM 1342	Lab
5422	Monique Koppel Th 12:30pm - 3:20pm	Seats (Total: 18) CHM 1346	Lab
5423	Monique Koppel Th 12:30pm - 3:20pm	Seats (Total: 18) CHM 1356	Lab
5431	Monique Koppel Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1342	Lab
5432	Monique Koppel Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1346	Lab
5441	Monique Koppel Th 6:30pm - 9:20pm	Seats (Total: 18) CHM 1342	Lab
5442	Monique Koppel Th 6:30pm - 9:20pm	Seats (Total: 18) CHM 1346	Lab
5443	Monique Koppel Th 6:30pm - 9:20pm	Seats (Total: 18) CHM 1356	Lab
5521	Monique Koppel F 12:00pm - 2:50pm	Seats (Total: 18) CHM 1342	Lab
5522	Monique Koppel F 12:00pm - 2:50pm	Seats (Total: 18) CHM 1346	Lab
5523	Monique Koppel F 12:00pm - 2:50pm	Seats (Total: 18) CHM 1356	Lab

5531	Monique Koppel F 3:00pm - 5:50pm	Seats (Total: 18) CHM 1342	Lab
5532	Monique Koppel F 3:00pm - 5:50pm	Seats (Total: 18) CHM 1346	Lab
5533	Monique Koppel F 3:00pm - 5:50pm	Seats (Total: 18) CHM 1356	Lab
SES1	Monique Koppel W 7:30pm - 10:20pm *Restricted to students in the SIE Program. Click here for more information.*	Seats (Total: 18) CHM 1346	Lab
SES2	Monique Koppel W 7:30pm - 10:20pm *Restricted to students in the SIE Program. Click here for more information.*	Seats (Total: 18) CHM 1342	Lab

CHEM232S **Organic Chemistry Laboratory I**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: CHEM131 and CHEM132; or (CHEM135 and CHEM136); or (CHEM146 and CHEM147). And a grade of C- or better in the prerequisites is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM231. Credit only granted for: CHEM104, CHEM231, CHEM233 or CHEM237. Formerly: CHEM233.

Provides experience in developing some basic laboratory techniques, recrystallization, distillation, extraction, chromatography.

Restricted to College Park Scholars - Life Sciences. Students must pay a $40.00 lab materials fee.

5133	Monique Koppel M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1342	Lab
5231	Monique Koppel Tu 3:30pm - 6:20pm	Seats (Total: 18) CHM 1342	Lab
5434	Monique Koppel Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1356	Lab

CHEM237 **Principles of Organic Chemistry I**

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM131, CHEM135, or CHEM146; and (CHEM132, CHEM136, or CHEM147); and a grade of C- or better in the prerequisites is required of College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Or permission of CMNS-Chemistry & Biochemistry department. Restriction: Must be in one of the following programs (Chemistry; Biochemistry) ; or must be in a major in ENGR-A. James Clark School of Engineering. Credit only granted for: CHEM233, (CHEM231 and CHEM232), or CHEM237.

The chemistry of carbons: aliphatic compounds, aromatic compounds, stereochemistry, arenes, halides, alcohols, esters, and spectroscopy.

Students must pay a $40.00 lab materials fee.

5325	Daniel Falvey MWF 10:00am - 10:50am W 12:00pm - 2:50pm Tu 12:30pm - 1:20pm	Seats (Total: 18) CHM 1402 CHM 1360 PHY 2208	 Lab Discussion
5335	Daniel Falvey MWF 10:00am - 10:50am W 3:00pm - 5:50pm Tu 12:30pm - 1:20pm	Seats (Total: 18) CHM 1402 CHM 1360 PHY 2208	 Lab Discussion
5345	Daniel Falvey MWF 10:00am - 10:50am Th 12:30pm - 3:20pm Tu 2:00pm - 2:50pm	Seats (Total: 18) CHM 1402 CHM 1360 PHY 2208	 Lab Discussion
5355	Daniel Falvey MWF 10:00am - 10:50am Th 3:30pm - 6:20pm Tu 2:00pm - 2:50pm	Seats (Total: 18) CHM 1402 CHM 1360 PHY 2208	 Lab Discussion

CHEM241 **Organic Chemistry II**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM231 and CHEM232; or CHEM237. And a grade of C- or better in the prerequisites is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Credit only granted for: CHEM241, CHEM243 or CHEM247. Formerly: CHEM243.

A continuation of CHEM231 with emphasis on molecular structure; substitution reactions; carbonium ions; aromaticity; synthetic processes; macromolecules.

6121	Bonnie Dixon MWF 9:00am - 9:50am Tu 8:00am - 8:50am	Seats (Total: 30) CHM 1407 PHY 2208	Discussion
6125	Bonnie Dixon MWF 9:00am - 9:50am Tu 9:30am - 10:20am	Seats (Total: 30) CHM 1407 PHY 2208	Discussion
6127	Bonnie Dixon MWF 9:00am - 9:50am Tu 11:00am - 11:50am	Seats (Total: 30) CHM 1407 PHY 2208	Discussion
6141	Bonnie Dixon MWF 9:00am - 9:50am Th 8:00am - 8:50am	Seats (Total: 30) CHM 1407 PHY 2208	Discussion
6145	Bonnie Dixon MWF 9:00am - 9:50am Th 9:30am - 10:20am	Seats (Total: 30) CHM 1407 PHY 2208	Discussion
6147	Bonnie Dixon MWF 9:00am - 9:50am Th 12:30pm - 1:20pm	Seats (Total: 30) CHM 1407 PHY 2208	Discussion
6222	Michael Montague-Smith TuTh 3:30pm - 4:45pm M 1:00pm - 1:50pm	Seats (Total: 30) CHM 1407 PHY 2208	Discussion
6225	Michael Montague-Smith TuTh 3:30pm - 4:45pm M 2:00pm - 2:50pm	Seats (Total: 30) CHM 1407 PHY 2208	Discussion
6227	Michael Montague-Smith TuTh 3:30pm - 4:45pm M 3:00pm - 3:50pm	Seats (Total: 30) CHM 1407 PHY 2208	Discussion
6242	Michael Montague-Smith TuTh 3:30pm - 4:45pm W 1:00pm - 1:50pm	Seats (Total: 30) CHM 1407 PHY 2208	Discussion

6245	Michael Montague-Smith TuTh 3:30pm - 4:45pm W 2:00pm - 2:50pm	Seats (Total: 30) CHM 1407 PHY 2208	Discussion
6247	Michael Montague-Smith TuTh 3:30pm - 4:45pm W 3:00pm - 3:50pm	Seats (Total: 30) CHM 1407 PHY 2208	Discussion
6321	Lyle Isaacs MWF 2:00pm - 2:50pm Tu 12:30pm - 1:20pm	Seats (Total: 30) CHM 1407 CHM 1228	Discussion
6322	Lyle Isaacs MWF 2:00pm - 2:50pm Tu 2:00pm - 2:50pm	Seats (Total: 30) CHM 1407 CHM 1228	Discussion
6325	Lyle Isaacs MWF 2:00pm - 2:50pm Tu 3:30pm - 4:20pm	Seats (Total: 30) CHM 1407 CHM 1228	Discussion
6341	Lyle Isaacs MWF 2:00pm - 2:50pm Th 12:30pm - 1:20pm	Seats (Total: 30) CHM 1407 CHM 1228	Discussion
6342	Lyle Isaacs MWF 2:00pm - 2:50pm Th 2:00pm - 2:50pm	Seats (Total: 30) CHM 1407 CHM 1228	Discussion
6345	Lyle Isaacs MWF 2:00pm - 2:50pm Th 3:30pm - 4:20pm	Seats (Total: 30) CHM 1407 CHM 1228	Discussion
SES1	Howard Fribush M 6:30pm - 9:30pm W 6:30pm - 7:20pm *Restricted to students in the SIE Program. Click here for more information.*	Seats (Total: 24) PLS 1130 PHY 2213	Discussion

CHEM242 **Organic Chemistry Laboratory II**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: CHEM231 and CHEM232; or CHEM237. And a grade of C- or better in the prerequisites is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM241. Credit only granted for: CHEM243 or CHEM247. Formerly: CHEM243.

Synthetic organic chemistry through functional group manipulation, introduction to instrumentation essential to analysis and structure elucidation.

Students must pay a $40.00 lab materials fee.

6121	Lee Friedman M 12:00pm - 2:50pm	Seats (Total: 18) CHM 1326	Lab
6131	Lee Friedman M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1326	Lab
6132	Lee Friedman M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1330	Lab
6141	Lee Friedman M 6:00pm - 8:50pm	Seats (Total: 18) CHM 1326	Lab
6142	Lee Friedman M 6:00pm - 8:50pm	Seats (Total: 18) CHM 1330	Lab
6221	Lee Friedman Tu 12:30pm - 3:20pm	Seats (Total: 18) CHM 1326	Lab
6222	Lee Friedman Tu 12:30pm - 3:20pm	Seats (Total: 18) CHM 1330	Lab
6231	Lee Friedman Tu 3:30pm - 6:20pm	Seats (Total: 18) CHM 1326	Lab
6232	Lee Friedman Tu 3:30pm - 6:20pm	Seats (Total: 18) CHM 1330	Lab
6241	Lee Friedman Tu 6:30pm - 9:20pm	Seats (Total: 18) CHM 1326	Lab
6321	Lee Friedman W 12:00pm - 2:50pm	Seats (Total: 18) CHM 1326	Lab

6322	Lee Friedman W 12:00pm - 2:50pm	Seats (Total: 18) CHM 1330	Lab
6331	Lee Friedman W 3:00pm - 5:50pm	Seats (Total: 18) CHM 1326	Lab
6341	Lee Friedman W 6:00pm - 8:50pm	Seats (Total: 18) CHM 1326	Lab
6421	Lee Friedman Th 12:30pm - 3:20pm	Seats (Total: 18) CHM 1326	Lab
6422	Lee Friedman Th 12:30pm - 3:20pm	Seats (Total: 18) CHM 1330	Lab
6431	Lee Friedman Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1326	Lab
6432	Lee Friedman Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1330	Lab
6441	Lee Friedman Th 6:30pm - 9:20pm	Seats (Total: 18) CHM 1326	Lab
6521	Lee Friedman F 12:00pm - 2:50pm	Seats (Total: 18) CHM 1326	Lab
6531	Lee Friedman F 3:00pm - 5:50pm	Seats (Total: 18) CHM 1326	Lab
SES1	Lee Friedman W 7:30pm - 10:20pm	Seats (Total: 18) CHM 1330	Lab
	Restricted to students in the SIE Program. Click here for more information.		

CHEM271 **General Chemistry and Energetics**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM241 and CHEM242; or CHEM247. And a grade of C- or better in the prerequisites for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM272. Credit only granted for: CHEM113, CHEM153, CHEM271 or CHEM276. Formerly: CHEM113.

An introduction to the physical aspects of chemistry; chemical kinetics, thermodynamics and electrochemistry in the context of current chemistry research.

2122	Leah Dodson MW 11:00am - 11:50am Tu 8:00am - 8:50am	Seats (Total: 38) CHM 1407 PHY 2106	Discussion
2124	Leah Dodson MW 11:00am - 11:50am Tu 9:30am - 10:20am	Seats (Total: 38) CHM 1407 PHY 2106	Discussion
2125	Leah Dodson MW 11:00am - 11:50am Tu 11:00am - 11:50am	Seats (Total: 38) CHM 1407 PHY 2106	Discussion
2142	Leah Dodson MW 11:00am - 11:50am Th 8:00am - 8:50am	Seats (Total: 38) CHM 1407 PHY 2106	Discussion
2144	Leah Dodson MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 38) CHM 1407 PHY 2106	Discussion
2145	Leah Dodson MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 38) CHM 1407 PHY 2106	Discussion
2224	Elizabeth Griffith MW 12:00pm - 12:50pm Tu 12:30pm - 1:20pm	Seats (Total: 38) CHM 1407 PHY 2122	Discussion
2227	Elizabeth Griffith MW 12:00pm - 12:50pm Tu 2:00pm - 2:50pm	Seats (Total: 38) CHM 1407 PHY 2122	Discussion
2228	Elizabeth Griffith MW 12:00pm - 12:50pm Tu 3:30pm - 4:20pm	Seats (Total: 38) CHM 1407 PHY 2122	Discussion

2244	Elizabeth Griffith MW 12:00pm - 12:50pm Th 12:30pm - 1:20pm	Seats (Total: 38) CHM 1407 PHY 2122	 Discussion
2247	Elizabeth Griffith MW 12:00pm - 12:50pm Th 2:00pm - 2:50pm	Seats (Total: 38) CHM 1407 PHY 2122	 Discussion
2248	Elizabeth Griffith MW 12:00pm - 12:50pm Th 3:30pm - 4:20pm	Seats (Total: 38) CHM 1407 PHY 2122	 Discussion
SES1	Natalia White M 6:00pm - 7:50pm W 6:30pm - 7:20pm *Restricted to students in the SIE Program. Click here for more information.*	Seats (Total: 20) CHM 1228 CHM 1228	 Discussion

CHEM272 **General Bioanalytical Chemistry Laboratory**

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: CHEM241 and CHEM242; or CHEM247. And a grade of C- or better in the prerequisites is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM271. Credit only granted for: CHEM227, CHEM272 or CHEM277.

An introduction to analytical chemistry with an emphasis on bio-analytical instrumentation and techniques.

Students must pay a $40.00 lab materials fee.

8111	Amanda Schech F 11:00am - 11:50am M 9:00am - 11:50am	Seats (Total: 12) CHM 1407 ESJ 2312	 Lab
8132	Amanda Schech F 11:00am - 11:50am M 3:00pm - 5:50pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
8211	Amanda Schech F 11:00am - 11:50am Tu 9:30am - 12:20pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab

8231	Amanda Schech F 11:00am - 11:50am Tu 3:30pm - 6:20pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
8311	Amanda Schech F 11:00am - 11:50am W 9:00am - 11:50am	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
8321	Amanda Schech F 11:00am - 11:50am W 12:00pm - 2:50pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
8331	Amanda Schech F 11:00am - 11:50am W 3:00pm - 5:50pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
8431	Amanda Schech F 11:00am - 11:50am Th 3:30pm - 6:20pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
8521	Amanda Schech F 11:00am - 11:50am F 12:00pm - 2:50pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
8522	Amanda Schech F 11:00am - 11:50am F 12:00pm - 2:50pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
9112	Amanda Schech F 12:00pm - 12:50pm M 9:00am - 11:50am	Seats (Total: 12) CHM 1407 ESJ 2316	 Lab
9121	Amanda Schech F 12:00pm - 12:50pm M 12:00pm - 2:50pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
9131	Amanda Schech F 12:00pm - 12:50pm M 3:00pm - 5:50pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab

9221	Amanda Schech F 12:00pm - 12:50pm Tu 12:30pm - 3:20pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
9322	Amanda Schech F 12:00pm - 12:50pm W 12:00pm - 2:50pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
9332	Amanda Schech F 12:00pm - 12:50pm W 3:00pm - 5:50pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
9411	Amanda Schech F 12:00pm - 12:50pm Th 9:30am - 12:20pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
9412	Amanda Schech F 12:00pm - 12:50pm Th 9:30am - 12:20pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
9421	Amanda Schech F 12:00pm - 12:50pm Th 12:30pm - 3:20pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
9422	Amanda Schech F 12:00pm - 12:50pm Th 12:30pm - 3:20pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
9432	Amanda Schech F 12:00pm - 12:50pm Th 3:30pm - 6:20pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
9531	Amanda Schech F 12:00pm - 12:50pm F 3:00pm - 5:50pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
SES1	Amanda Schech M 8:00pm - 8:50pm W 7:30pm - 10:20pm *Restricted to students in the SIE Program. Click here for more information.*	Seats (Total: 20) ONLINE ESJ 2312	 Lab

CHEM276 **General Chemistry and Energetics - Majors**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHEM241 and CHEM242; or minimum grade of C- in CHEM247. Corequisite: CHEM277. Restriction: Must be in one of the following programs (Chemistry; Biochemistry). Credit only granted for: CHEM113, CHEM153, CHEM271 or CHEM276. Formerly: CHEM153.

An introduction to the physical aspects of chemistry for Biochemistry and Chemistry majors. Chemical kinetics, thermodynamics and electrochemistry in the context of current chemistry research.

0224	John Fourkas WF 9:00am - 9:50am Tu 9:30am - 10:20am	Seats (Total: 30) ATL 2400 CHM 1224	 Discussion
0225	John Fourkas WF 9:00am - 9:50am Th 9:30am - 10:20am	Seats (Total: 30) ATL 2400 CHM 1224	 Discussion

CHEM277 **Fundamentals of Analytical and Bioanalytical Chemistry Laboratory**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CHEM241 and CHEM242; or minimum grade of C- in CHEM247. Corequisite: CHEM276. Restriction: Must be in one of the following programs (Chemistry; Biochemistry). Credit only granted for: CHEM153, CHEM227, CHEM272 or CHEM277.

Quantitative analysis, inorganic analytical chemistry, and an introduction to bio-analytical instrumentation and techniques.

Students must pay a $40.00 lab materials fee.

8111	Jason Kahn M 9:00am - 9:50am MW 12:00pm - 2:50pm	Seats (Total: 18) ATL 2400 ESJ 0312	 Lab
8211	Jason Kahn M 9:00am - 9:50am TuTh 12:30pm - 3:20pm	Seats (Total: 18) ATL 2400 ESJ 0312	 Lab
8221	Jason Kahn M 9:00am - 9:50am TuTh 3:30pm - 6:20pm	Seats (Total: 18) ATL 2400 ESJ 0312	 Lab

8311	Jason Kahn	Seats (Total: 18)	
	M 9:00am - 9:50am WF 3:00pm - 5:50pm	ATL 2400 ESJ 0312	Lab

CHEM395 **Professional Issues in Chemistry and Biochemistry**

Credits: 1 Grading Method: Sat-Fail

Restriction: Junior standing or higher; and must be in one of the following programs (Chemistry; Biochemistry).

Seminar on professional issues. Professional responsibilities, ethics, interview techniques, career opportunities, graduate/professional school, race and gender issues.

0101	Janice Reutt-Robey	Seats (Total: 113)	
	Tu 11:00am - 11:50am	CHM 1402	

CHEM398 **Special Projects**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Honors projects for undergraduate students.

Limited to chemistry honors students. Consult with Dr. Montague-Smith.

Contact department for information to register for this course.

CHEM399A **Introduction to Chemical Research**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Basic (chemical) research conducted under the supervision of a faculty member.

Contact department for information to register for this course.

CHEM399B **Introduction to Chemical Research**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Basic (chemical) research conducted under the supervision of a faculty member.

Contact department for information to register for this course.

CHEM399C **Introduction to Chemical Research**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Basic (chemical) research conducted under the supervision of a faculty member.

Contact department for information to register for this course.

CHEM399X **Introduction to Chemical Research**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Basic (chemical) research conducted under the supervision of a faculty member.

Prerequsite: permission of department.

0101	Michael Montague-Smith Contact instructor or department for details.	Seats (Total: 15)
0102	Instructor: TBA Contact instructor or department for details.	Seats (Total: 30)

CHEM401 **Inorganic Chemistry**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM276 or CHEM271; and (CHEM247 or CHEM241).

An overview of basic concepts of the electronic structure of the elements, chemical bonding and reactivity, from simple diatomic molecules to coordination compounds. These are viewed from simple (Lewis) to the most comprehensive molecular orbital theory. Symmetry and group theory are used throughout the course.

0101	Lawrence Sita MWF 2:00pm - 2:50pm	Seats (Total: 62) MCB 1207

CHEM425 **Instrumental Methods of Analysis**

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM272 and CHEM271; or (CHEM276 and CHEM277).

Modern instrumentation in analytical chemistry. Electronics, spectroscopy, chromatography and electrochemistry.

Students must pay a $40.00 lab materials fee.

0101	Natalia White MW 11:00am - 11:50am MW 1:00pm - 3:50pm	Seats (Total: 12) CHM 1402 CHM 3228	 Lab
0102	Natalia White MW 11:00am - 11:50am TuTh 12:30pm - 3:20pm	Seats (Total: 12) CHM 1402 CHM 3228	 Lab
0104	Natalia White MW 11:00am - 11:50am TuTh 9:30am - 12:20pm	Seats (Total: 12) CHM 1402 CHM 3228	 Lab
0105	Natalia White MW 11:00am - 11:50am MW 6:00pm - 8:50pm	Seats (Total: 12) CHM 1402 CHM 3228	 Lab

CHEM433 **Atmospheric Chemistry and Climate**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM131, CHEM135, or CHEM146. And MATH241; or permission of CMNS-Atmospheric & Oceanic Science department; or permission of CMNS-Chemistry & Biochemistry department. Cross-listed with AOSC433. Credit only granted for: AOSC433, AOSC633, CHEM433, or CHEM633. Formerly: CHEM434.

The effects of human activity on atmospheric composition, focused on global warming, the carbon cycle, air pollution, and the ozone layer. Fundamentals of atmosphereic chemistry (spectroscopy, kinetics, isotopic analysis, and biogeochemical cycles) are related to the modern understanding of climate change, air quality, and ozone depletion, based on resources such as satellite missions, field campaigns, and scientific assessments published by international agencies. We also examine how society's energy needs could be met, in the future, in a manner with less impact on atmospheric composition than the present heavy reliance on combusion of fossil fuels.

0101	Ross Salawitch TuTh 2:00pm - 3:15pm	Seats (Total: 40) ATL 2428	

CHEM481 **Physical Chemistry I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHEM135; or minimum grade of C- in CHEM271 and CHEM272; or minimum grade of C- in CHEM276 and CHEM277. And minimum grade of C- in MATH141. And minimum grade of C- in PHYS260 and PHYS261; or minimum grade of C- in PHYS141.

Thermodynamics and kinetics of chemical and molecular systems. Topics may include internal energy, heat, work, enthalpy, entropy, free energy, and spontaneity as well as reaction order, differential rate laws, integrated rate laws, and rate laws for multi-step processes.

0101	Millard Alexander MWF 9:00am - 9:50am	Seats (Total: 70) CHM 1402	

CHEM482 **Physical Chemistry II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHEM481. Credit only granted for: CHEM482 or BCHM485.

Quantum mechanical nature of atoms and molecules. Topics may include model systems for electronic, vibrational, rotational and translational energies as well as connections to molecular spectroscopy and thermal distributions.

0101	YuHuang Wang MWF 9:00am - 9:50am	Seats (Total: 54) ESJ 1215	

CHEM483 **Physical Chemistry Laboratory I**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in CHEM481.

An introduction to the principles and application of quantitative techniques in physical chemical measurements. Experiments will be coordinated with topics in CHEM481.

Students must pay a $40.00 lab materials fee.

0101	Amanda Souna M 4:00pm - 4:50pm W 10:00am - 12:50pm	Seats (Total: 18) PLS 1130 CHM 3225	 Lab
0102	Amanda Souna M 4:00pm - 4:50pm W 2:00pm - 4:50pm	Seats (Total: 18) PLS 1130 CHM 3225	 Lab
0103	Amanda Souna M 4:00pm - 4:50pm Th 2:00pm - 4:50pm	Seats (Total: 18) PLS 1130 CHM 3225	 Lab

CHEM484 **Physical Chemistry Laboratory II**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM481 and CHEM483; and must have completed or be concurrently enrolled in CHEM482.

A continuation of CHEM 483. Advanced quantitative techniques necessary in physical chemical measurements. Experiments will be coordinated with topics in CHEM 482.

Students must pay a $40.00 lab materials fee.

0101	Amanda Souna Tu 9:30am - 10:20am Tu 3:00pm - 5:50pm	Seats (Total: 14) CHM 1228 CHM 3221	 Lab
0103	Amanda Souna Tu 9:30am - 10:20am W 3:00pm - 5:50pm	Seats (Total: 14) CHM 1228 CHM 3221	 Lab

CHEM602 **Advanced Inorganic Chemistry II**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: CHEM601; or permission of instructor.

A continuation of CHEM 601 with emphasis on the application of contemporary spectroscopic techniques to inorganic problems.

0101	Andrei Vedernikov TuTh 9:30am - 10:45am	Seats (Total: 20) PHY 2211

CHEM612 **Scientific Presentations**

Credits: 1 Grading Method: Sat-Fail

Prerequisite: CHEM611.

Workshops will cover all aspects of giving scientific presentations. Each student will give a presentation based oon the topic of his/her final paper in CHEM611. Presentations will be critiqued by peers and faculty members.

0101	Neil Blough F 4:00pm - 4:50pm	Seats (Total: 40) Location: TBA

CHEM623 **Optical Methods of Quantitative Analysis**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: CHEM482; or students who have taken courses with comparable content may contact the department.

The quantitative applications of various methods of optical spectroscopy.

0101	Neil Blough	Seats (Total: 17)
	MWF 2:00pm - 2:50pm	PHY 2124

CHEM633 **Atmospheric Chemistry and Climate**

Credits: 3 Grading Method: Regular

Prerequisite: CHEM131, CHEM135, or CHEM146. Cross-listed with: AOSC633. Credit only granted for: AOSC433, AOSC633, CHEM433, or CHEM633.

The effects of human activity on atmospheric composition, focused on global warming, the carbon cycle, air pollution, and the ozone layer. Fundamentals of atmosphereic chemistry (spectroscopy, kinetics, isotopic analysis, and biogeochemical cycles) are related to the modern understanding of climate change, air quality, and ozone depletion, based on resources such as satellite missions, field campaigns, and scientific assessments published by international agencies. We also examine how society's energy needs could be met, in the future, in a manner with less impact on atmospheric composition than the present heavy reliance on combusion of fossil fuels.

0101	Ross Salawitch	Seats (Total: 2)
	TuTh 2:00pm - 3:15pm	ATL 2428

CHEM647 **Organic Synthesis**

Credits: 3 Grading Method: Regular, Audit

The use of new reagents in organic reactions; multistep syntheses leading to natural products of biological interest; stereospecific and regiospecific reactions and their use in total synthesis.

0101	Jeffery Davis	Seats (Total: 20)
	MWF 9:00am - 9:50am	ONLINE

CHEM687 **Statistical Mechanics and Chemistry**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: CHEM684; or students who have taken courses with comparable content may contact the department.

0101	Garegin Papoian	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	PHY 2124

CHEM689L **Special Topics in Physical Chemistry; Interfacing with Instrumentation using LabVIEW**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Amy Mullin	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	PHY 2211

CHEM699 **Special Problems in Chemistry**

Credits: 1-6 Grading Method: Regular, Audit

Laboratory experience in a research environment.

Open only to non-thesis Master's degree candidates.

Contact department for information to register for this course.

CHEM705 **Nuclear Chemistry**

Credits: 3 Grading Method: Regular, Audit

Nuclear structure models, radioactive decay processes, nuclear reactions in complex nuclei, fission, nucleosynthesis and nuclear particle accelerators.

0101	Alice Mignerey	Seats (Total: 15)
	MW 4:00pm - 5:15pm	CHM 1224

CHEM799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CHEM889A **Seminar; Analytical, Nuclear and Environmental Chemistry**

Credits: 1 Grading Method: Regular, Audit

0101	Neil Blough F 3:00pm - 5:00pm	Seats (Total: 75) CHM 1402

CHEM889C **Seminar; Inorganic Chemistry**

Credits: 1 Grading Method: Regular, Audit

0101	Lai-Xi Wang Th 11:00am - 12:15pm	Seats (Total: 50) PLS 1130

CHEM889D **Seminar; Organic Chemistry**

Credits: 1 Grading Method: Regular, Audit

0101	Lai-Xi Wang Th 11:00am - 12:15pm	Seats (Total: 25) PLS 1130

CHEM889E **Seminar; Physical Chemistry**

Credits: 1 Grading Method: Regular, Audit

Cross-listed with CHEM889F and CHPH709A. Credit granted for CHEM889E, CHEM889F, or CHPH709A.

0101	Pratyush Tiwary W 11:00am - 12:15pm	Seats (Total: 75) ATL 1113

CHEM889F **Seminar; Chemical Physics**

Credits: 1 Grading Method: Regular, Audit

Cross-listed with CHEM889E and CHPH709A. Credit granted for CHEM889F, CH EM889E, or CHPH709A.

0101	Pratyush Tiwary W 11:00am - 12:15pm	Seats (Total: 75) ATL 1113

CHEM889G **Seminar; Physical Organic Chemistry**

Credits: 1 Grading Method: Regular, Audit

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)

CHEM889M **Seminar; Materials Chemistry**

Credits: 1 Grading Method: Regular, Audit

Contact department for information to register for this course.

CHEM898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

CHEM899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CHIN Chinese Spring 2022

CHIN102 **Elementary Spoken Chinese**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: CHIN101; or students who have taken courses with comparable content may contact the department; or must have attained appropriate Foreign Language Placement Test (FLPT) score. Corequisite: CHIN103. Additional information: Must be taken in conjunction with CHIN103.

Continued study of grammatical patterns and vocabulary buildup with particular emphasis on conversation.

0101	Mei Kong MWF 10:00am - 10:50am	Seats (Total: 15) JMZ 1124
0201	Guiling Hu MWF 1:00pm - 1:50pm	Seats (Total: 15) JMZ 2125

CHIN103 **Elementary Written Chinese**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: CHIN101; or students who have taken courses with comparable content may contact the department; or must have attained appropriate Foreign Language Placement Test (FLPT) score. Corequisite: CHIN102. Additional information: Must be taken in conjunction with CHIN102.

Continued study of grammatical patterns and buildup of vocabulary with particular emphasis on reading and writing.

0101	Yuli Wang TuTh 9:30am - 10:45am	Seats (Total: 15) JMZ 3203
0201	Guiling Hu Class time/details on ELMs	Seats (Total: 15) ONLINE

CHIN169A **Special Topics in Study Abroad I; Elementary Chinese I**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN169B **Special Topics in Study Abroad I; Elementary Chinese II**

Credits: 3-4 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN201 **Intermediate Spoken Chinese I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO

Prerequisite: CHIN102; or must have attained appropriate Foreign Language Placement Test (FLPT) score. Corequisite: CHIN202. Additional information: Must be taken in conjunction with CHIN202.

Emphasis on development of conversational skills with vocabulary build-up and controlled conversation.

Contact department for information to register for this course.

CHIN202 **Intermediate Written Chinese I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO General Education: DVCC

Prerequisite: CHIN103; or must have attained appropriate Foreign Language Placement Test (FLPT) score. Corequisite: CHIN201. Additional information: Must be taken in conjunction with CHIN201.

Reading and writing skills with emphasis on grammar and Chinese characters.

Contact department for information to register for this course.

CHIN203 **Intermediate Spoken Chinese II**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: HO

Prerequisite: CHIN201; or students who have taken courses with comparable content may contact the department; or must have attained appropriate Foreign Language Placement Test (FLPT) score. Corequisite: CHIN204. Additional information: Must be taken in conjunction with CHIN204.

Continuation of CHIN201.

0101	Jungjung Lee-Heitz MWF 10:00am - 10:50am	Seats (Total: 15) JMZ 2125
0201	Guiling Hu MWF 11:00am - 11:50am	Seats (Total: 15) JMZ 3122

CHIN204 **Intermediate Written Chinese II**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: HO | General Education: DVCC

Prerequisite: CHIN202; or students who have taken courses with comparable content may contact the department; or must have attained appropriate Foreign Language Placement Test (FLPT) score. Corequisite: CHIN203. Additional information: Must be taken in conjunction with CHIN203.

Continuation of CHIN202.

0101	Yuli Wang TuTh 11:00am - 12:15pm	Seats (Total: 15) JMZ 2120
0201	Guiling Hu Class time/details on ELMs	Seats (Total: 15) ONLINE

CHIN269A **Special Topics in Study Abroad II; Introduction to Beijing**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269C **Special Topics in Study Abroad II; Modern Chinese Culture and Society I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269D **Special Topics in Study Abroad II; Chinese Conversation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269J **Special Topics in Study Abroad II; Intermediate Chinese**

Credits: 2-3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269K **Special Topics in Study Abroad II; Intermediate Chinese II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269P **Special Topics in Study Abroad II; The China Phenomenon**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269V **Special Topics in Study Abroad II; Chinese Calligraphy I**

Credits: 1-2 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269W **Special Topics in Study Abroad II; Chinese Calligraphy II**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269Z **Special Topics in Study Abroad II; Modern Chinese Culture and Society**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN301 **Advanced Chinese I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHIN202; or students who have taken courses with comparable content may contact the department. And must have taken a placement interview offered by the department for Non-majors.

Readings in expository and fictional writing with conversation and composition.

Contact department for information to register for this course.

CHIN302 **Advanced Chinese II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: CHIN301; or students who have taken courses with comparable content may contact the department. And must have taken a placement interview offered by the department for Non-majors.

Continuation of CHIN301.

0101	Jungjung Lee-Heitz MWF 11:00am - 11:50am	Seats (Total: 15) JMZ 2125
0201	Jungjung Lee-Heitz MWF 2:00pm - 2:50pm	Seats (Total: 15) JMZ 3122

CHIN306 **Life in China through TV Plays II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: CHIN305; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Continuation of CHIN305 using authentic Chinese language material in TV plays to learn about society and life in China.

0101	Jungjung Lee-Heitz	Seats (Total: 15)
	MWF 1:00pm - 1:50pm	JMZ 3122

CHIN315 **Modern Chinese Literature in Translation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DSHU

Major works of fiction and drama from 1920 to the present read in the context of social and literary change. Emphasis on western and traditional Chinese influences on the writers and their works. No knowledge of Chinese required.

0101	Ying Xue Liu	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	JMZ 0122

CHIN332 **Chinese Culture through Traditional Chinese Arts**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Study of calligraphy, music, painting, and taichi coupled with critical readings of scholarly and literary texts. Facilitates an understanding of China and Chinese culture through traditional Chinese arts. Taught in English.

0101	Yuli Wang	Seats (Total: 15)
	Tu 2:00pm - 4:30pm	JMZ 0205

CHIN369A **Special Topics in Study Abroad III; China Practicum and Connecting Across Cultures**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369B **Special Topics in Study Abroad III; Advanced Chinese I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369C **Special Topics in Study Abroad III; Advanced Chinese II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369D **Special Topics in Study Abroad III; Advanced Chinese III**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369E **Special Topics in Study Abroad III; Advanced Chinese IV**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369F **Special Topics in Study Abroad III; Advanced Chinese V**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369G **Special Topics in Study Abroad III; Advanced Chinese VI**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369I **Special Topics in Study Abroad III; Advanced Chinese VII**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369J **Special Topics in Study Abroad III; Advanced Chinese VIII**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369M **Special Topics in Study Abroad III; Modern Chinese Culture II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Must have learning proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Restriction: Junior standing or higher.

Contact department for information to register for this course.

CHIN401 **Readings in Modern Chinese I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHIN302; or students who have taken courses with comparable content may contact the department. And must have taken a placement interview offered by the department for Non-majors.

Readings in history, politics, economics, sociology, and literature. Emphasis on wide-ranging, rapid reading, reinforced by conversations and compositions.

Contact department for information to register for this course.

CHIN402 **Readings in Modern Chinese II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: CHIN401; or students who have taken courses with comparable content may contact the department. And must have taken a placement interview offered by the department for Non-majors.

Continuation of CHIN401.

0101	Mei Kong MWF 11:00am - 11:50am	Seats (Total: 15) JMZ 1226
0201	Mei Kong MWF 12:00pm - 12:50pm	Seats (Total: 15) JMZ 1215

CHIN403 **Classical Chinese I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHIN302 or CHIN306; or permission of instructor. Additional information: Texts in Chinese. Class discussion and course work mainly in English.

Close readings and discussion of literary, philosophical and historical texts in the original language. The course situates texts in their historical context and also discusses differences between classical and modern Chinese.

0101	Mei Kong MWF 3:00pm - 3:50pm	Seats (Total: 15) JMZ 2117

CHIN418D **Special Topics in Contemporary Chinese Fiction and Film; China through the Sino-Japanese Wars**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Various approaches to the most recent textual productions of China and Taiwan. Taught in Chinese.

Literary and cinematic representations of China through the years of the First and Second Sino-Japanese Wars. Special focus on the role of modern racial discourse in war. Taught in English.

0101	Ying Xue Liu TuTh 3:30pm - 4:45pm	Seats (Total: 15) JMZ 3122

CHIN425 **Ethnic and Cultural Diversity in China**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVUP

Recommended: Any CHIN course or course on China. Credit only granted for: CHIN425 or CHIN429G. Formerly: CHIN429G.

This course looks into ethnic and cultural diversity in China. It examines the evolution of the People's Republic of China's (PRC) ethnic policies in relation to nation-state building over the last six decades. Specifically, it studies how the PRC has categorized the Chinese people into 56 ethnic groups, how it has made affirmative action policies to accommodate ethnic diversity, and what problems its approaches have experienced and what solutions it has proposed in its accommodation of ethnicity and diversity in the 21st century. To examine the above issues, the course introduces and applies the concepts of ethnicity, nationality, ethnic nationalism, civic nationalism, identity, social Darwinism, the Soviet model of multinational state building, the Chinese model of inclusive Chinese nation state building, citizenship, individual rights, group rights, equality, and diversity.

0101	Minglang Zhou	Seats (Total: 25)
	TuTh 9:30am - 10:45am	JMZ 1122

CHIN499 **Directed Study in Chinese**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Readings in Chinese under faculty supervision.

Contact department for information to register for this course.

CHIN499A **Directed Study in Chinese; Advanced Chinese V**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Readings in Chinese under faculty supervision.

Contact department for information to register for this course.

CHIN499C **Directed Study in Chinese; Advanced Chinese VI**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Readings in Chinese under faculty supervision.

Contact department for information to register for this course.

CHPH Chemical Physics Spring 2022

CHPH618 **Special Projects in Chemical Physics**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Independent reading and study covering chemical physics subject areas not available in other courses.

Contact department for information to register for this course.

CHPH709A **Seminar in Chemical Physics; Physical Chemistry**

Credits: 1 Grading Method: Regular, Audit

Current research and developments in chemical physics.

Jointly offered with CHEM 889E and CHEM 889F. Credit granted for CHPH709 A, CHEM889E, or CHEM889F.

0101	Pratyush Tiwary W 11:00am - 12:15pm	Seats (Total: 75) ATL 1113

CHPH709B **Seminar in Chemical Physics; Statistical Physics**

Credits: 1 Grading Method: Regular, Audit

Current research and developments in chemical physics.

Cross-listed with PHYS709. Credit granted for PHYS709 or CHPH709B.

0101	Pratyush Tiwary Tu 1:15pm - 2:30pm	Seats (Total: 30) IPT 1116

CHPH709L **Seminar in Chemical Physics; Biophysics**

Credits: 1 Grading Method: Regular, Audit

Current research and developments in chemical physics.

Cross-listed with PHYS798L. Credit granted for PHYS798L or CHPH709L.

0101	Arpita Upadhyaya M 4:00pm - 5:30pm	Seats (Total: 20) IPT 1116

CHPH718E **Special Topics in Chemical Physics; Mesoscopic and Nanoscale Thermodynamics**

Credits: 1-3 Grading Method: Regular, Audit

A discussion of current research problems in chemical physics.

0101	Mikhail Anisimov TuTh 12:30pm - 1:45pm	Seats (Total: 5) Location: TBA

CHPH718I **Special Topics in Chemical Physics; Chemical Physics Rotation**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

A discussion of current research problems in chemical physics.

0101	Wendell Hill Class time/details on ELMs	Seats (Total: 5) ONLINE
0201	Wendell Hill Contact instructor or department for details.	Seats (Total: 10)

CHPH799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CHPH898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

CHPH899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CHSE Counseling, Higher Education, and Special Education — Spring 2022

CHSE205 **Disability: From Stigma and Sideshow to Mainstream and Main Street**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, DVUP, SCIS

Credit only granted for: EDSP289I or CHSE205. Formerly: EDSP289I.

Explores the cultural, historical, educational, and medical roots of difference among human beings and examines the impact of cultural and technological changes on individuals traditionally identified as disabled. The course is designed to develop a broad understanding of the concept of "disability" and the emerging technologies that shape contemporary understanding of this phenomenon and the lives of those considered disabled.

0101	Yewon Lee TuTh 12:30pm - 1:45pm	Seats (Total: 60) ASY 1213

CHSE338J **Teaching and Learning about Cultural Diversity through Intergroup Dialogue: Dialogue Facilitation Practicum**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVCC

Cross-listed with: CPSP369J, HONR338J. Credit only granted for: CHSE338J, HONR338J, or CPSP369J.

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on identity-based topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

Restriction: Permission of department.

0101	Carlton Green, Jazmin Pichardo Th 3:30pm - 6:00pm	Seats (Total: 18) CCC 1115

CHSE338K **Teaching and Learning about Cultural Diversity through Intergroup Dialogue; Equity and Inclusion in Engineering Design**

(Perm req)

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVCC

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on identity-based topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

Restriction: permission of department.

0201	John Cumings, Daniel Serrano, Vinette Brown-Darlington **Meets January 24, 2022 - March 7, 2022** M 4:00pm - 6:00pm	Seats (Total: 20) EGR 3114
0202	Paige Smith, Suzanne Ashour-Bailey **Meets January 24, 2022 - March 10, 2022** Th 4:00pm - 6:00pm	Seats (Total: 20) EGR 2116

CHSE338N **Teaching and Learning about Cultural Diversity through Intergroup Dialogue; Race, Gender, or Sexual Identity**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVCC

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on identity-based topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

Please add note: Formerly offered as EDHI338N.

0201	David Bonilla-Ciferri, Kai Kai Mascarenas, Jazmin Pichardo, Benjamin Beltran, Jean Snell, Adam Klager, Cameron Busacca **Meets March 29, 2022 - May 10, 2022** Tu 6:30pm - 8:30pm	Seats (Total: 42) Location: TBA

CHSE338P **Teaching and Learning about Cultural Diversity through Intergroup Dialogue; Emergent Theme**

(Perm req)

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVCC

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on identity-based topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

0101	Melissa Del Rios, Yvonne Ochieng, Adam Klager, Jazmin Pichardo **Meets March 28, 2022 - May 10, 2022** M 4:00pm - 6:00pm	Seats (Total: 16) Location: TBA

CHSE338T **Teaching and Learning about Cultural Diversity through Intergroup Dialogue; Race, Gender or Citizenship**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVCC

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on identity-based topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

Please add note: Formerly offered as EDHI338T

0101	Marc Weinschenker, Tiffany Wright, Tia Dolet, Jazmin Pichardo, Laura Widener, Diksha Bali, Adam Klager **Meets January 26, 2022 - March 9, 2022** W 6:30pm - 8:30pm	Seats (Total: 42) Location: TBA

CHSE338X **Teaching and Learning about Cultural Diversity through Intergroup Dialogue; Race, Socioeconomic Status, or (Dis)Ability**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVCC

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on identity-based topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

Please add note: Formerly offered as EDHI338X.

0201	Jazmin Pichardo, Marc Weinschenker, Faith Sears, Adam Klager, Jamila Aswad, Tiffany Wright, Tia Dolet, Thomas Le, Laura Widener **Meets March 28, 2022 - May 9, 2022** M 6:00pm - 8:00pm	Seats (Total: 42) Location: TBA

CHSE389 **Independent Study**

(Perm req)

Credits: 3 | Grading Method: Regular, Audit

This course builds on the goals and skills students acquired through CHSE200: College Success and Life Planning - Managing College and Career Life through goal development and planning. The course offers independent projects based on individual goals and plans. This will supplement and assist students to complete the requirements for the TerpsEXCEED Certification in their respective field of study. Prerequisite: CHSE200: College Success and Life Planning - Managing College and Career Life through goal development and planning.

1901	Amy D'Agati	Seats (Total: 10)
	Contact instructor or department for details.	

CHSE489 **TerpsEXCEED Internship**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

This field-based course is required for TerpsEXCEED students each semester, building on itself. Beginning semesters focus on career development, interests, job assessments and exploration. Middle semesters allows students to participate in work based learning experiences, internships and on-the-job trials on campus and within College Park and Washington DC. The final semester focuses on acquiring a paid job in a career filed of interest.

1701	Ann Nancy Forsythe	Seats (Total: 10)
	Contact instructor or department for details.	
1901	Amy D'Agati	Seats (Total: 10)
	Contact instructor or department for details.	

CHSE675 **Applied Meta-Analysis**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Graduate level statistics course covering the generalized linear model.

Meta-analysis is a set of statistical procedures for aggregating, analyzing, and synthesizing information from multiple quantitative research studies. We will cover the major steps involved in conducting a systematic review and meta-analysis. We will focus on technical issues and analyses unique to this form of quantitative research. Upon successful completion of this course, you should have the skills need to be an informed consumer of meta-analyses relative to research design, implementation, and policy implications, conduct a systematic, replicable search of the literature to identify studies, reports, and other documents for a meta-analysis, create a database and conduct a meta-analysis using the appropriate statistical methods, and prepare a comprehensive written report of your meta-analytic results. To provide practical experience, each student will complete a systematic review and meta-analysis project over the course of the semester.

0101	Jason Chow M 1:15pm - 4:00pm	Seats (Total: 15) KNI 1105	

CINE Cinema and Media Studies Spring 2022

CINE245 **Film Form and Culture**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Cross-listed with: ENGL245. Credit only granted for: ENGL245, CINE245 or FILM245. Formerly: FILM245.

Introduction to film as art form and how films create meaning. Basic film terminology; fundamental principles of film form, film narrative, and film history. Examination of film technique and style over past one hundred years. Social and economic functions of film within broader institutional, economic, and cultural contexts.

0201	Porter Olsen TuTh 2:00pm - 3:15pm	Seats (Total: 30) TWS 0320	
0301	Porter Olsen TuTh 11:00am - 12:15pm	Seats (Total: 30) TWS 0320	

CINE280 **Film Art in a Global Society**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP

Cross-listed with: CMLT280. Credit only granted for: CINE280, FILM298D or CMLT280. Formerly: FILM298D.

Comparative study of a variety of film traditions from around the world, including cinema from Hollywood, Europe, Asia and developing countries, with a stress on different cultural contexts for film-making and viewing.

0101	Luka Arsenjuk MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 25) TWS 0320 TWS 0236	 Discussion
0102	Luka Arsenjuk MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) TWS 0320 TWS 1107	 Discussion

0103	Luka Arsenjuk MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 25) TWS 0320 TWS 0236	 Discussion
0104	Luka Arsenjuk MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) TWS 0320 TWS 0221	 Discussion

CINE282 **Heroes and Villains in American Film**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP

Cross-listed with: AMST213. Credit only granted for: AMST213, HONR219F, CINE282 or FILM298V. Formerly: HONR219F, FILM298V.

We will examine the complex, changing, and ever-present representations of heroes and villains in American film. Beginning with a foundational understanding of how heroes and, conversely, villains have been defined through classic Hollywood film, we will explore how these definitions have shifted throughout the 20th and 21st century in various narrative genres, including westerns, war films, film noir, fantasy, science fiction, and, of course, superhero movies. In particular, we will be focusing on how the hero and villain maintain or disrupt specific cultural ideologies concerning race/ethnicity, gender, sexuality, and ability. This course will examine how these various ideologies have evolved throughout the 20th and 21st century, impacting the ways in which heroes and villains are both represented in American film and perceived by diverse audiences. Finally, we will examine our own complicated and sometimes troubling identification with these heroes, even when they might stand in stark contrast to our cultural values and identities.

0101	Susan Pramschufer TuTh 9:30am - 10:45am	Seats (Total: 35) TYD 1108	

CINE298J **Special Topics in International Film Studies; Bagel, Lox, Action: The Construction of Jewishness on Screen**

Credits: 3 | Grading Method: Regular, Pass-Fail

Special topics in International Film.

Cross-listing with JWST219J. Credit only granted for JWST219J or CINE298J. This course will examine the ways in which filmmakers have used the cinematic medium to construct Jewish identity, and the different ways Jews and Jewishness have been represented in cinema over time. We will investigate different types of representations of Jews, asking how they operate in broader social context and film traditions. Our goal will be to critically engage with the films and to grapple with such questions as: How is Jewishness defined by film creators? What are the points of linkage and rupture between the various films? Are Jewish films, if such a category exists, the product of a marginalized minority? How do definitions of ethnic film help analyze Jewish film? Can non-Jewish filmmakers create Jewishness on screen?

0101	Adi Mahalel	Seats (Total: 30)
	Tu 3:30pm - 6:00pm	ONLINE

CINE302 **Cinema History II: The Sound Era**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENGL245, FILM245, or CINE245. Restriction: Must have permission of the Film Studies program. Credit only granted for: CINE302 or FILM302. Formerly: FILM302.

Introduction to the international history of cinema from sound around 1930 to the present.

0101	Marianne Conroy	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	ESJ B0322

CINE319G **Special Topics in Documentary, Animation, Experimental Cinema, and Other Visual Media; Ecomedia**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Examine the possibilities of non-narrative cinema, or cinema that is structured differently from the fiction feature film, as well as other media (television, digital imagery, and photography) that entertain a close relationship with cinema in terms of form, content, and audience. Content varies.

Cross-listed with ENGL329M. Credit only granted for ENGL329M or CINE319G. Prerequisite: ENGL245, FILM245, SLLC283, CINE245 or FILM283 or CINE283; or permission of instructor.

0101	Oliver Gaycken	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	ESJ B0322

CINE329N **Special Topics in National/International Cinemas; Politics and Memories on Screen: A History of Latin American Cinema**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Examine one or more national cinematic traditions (including Hollywood cinema), or may look across traditions comparatively, for example at international and/or transnational phenomena. Content varies.

Credit only granted for CINE329N or FILM329N.

0101	Daniel Richter	Seats (Total: 30)
	W 10:00am - 11:30am	ESJ B0322
	Class time/details on ELMs	ONLINE

CINE329P **Special Topics in National/International Cinemas; Gender and Storytelling in Iranian Film and Theater**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Examine one or more national cinematic traditions (including Hollywood cinema), or may look across traditions comparatively, for example at international and/or transnational phenomena. Content varies.

Human beings have told stories from the dawn of civilization. This course explores the power, place, and practice of storytelling in relation to the gender and gender-bending of the narrator, narrated, and reader. We will look at the way storytelling practice has been used for performing, reforming, and transforming gender in a variety of narratives (lyrical forms, memoirs, films, and performances). Cross-listed with PERS398E. Credit granted for PERS398E or CINE329P.

0101	Marjan Moosavi	Seats (Total: 25)
	MW 2:00pm - 3:15pm	JMZ 1122

CINE332 **Brazilian Cinema**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Cross-listed with: PORT332. Credit only granted for: PORT332, CINE332, or FILM332. Formerly: FILM332.

Brazilian films from the late 1950s to the present with a special view to the relationship between cinema, society, historical dates, and social changes in Brazil. Taught in English.

0101	Thayse Lima	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	JMZ 2122

CINE334 **Soviet Film: Propaganda, Myth, Modernism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: RUSS334. Credit only granted for: RUSS334, CINE334, or FILM334. Formerly: FILM334.

A Survey of Soviet film from the 1920s to 1991, focusing on important directors, genres, themes, and styles. Taught in English.

0101	Elizabeth Papazian	Seats (Total: 30)
	Tu 2:00pm - 3:15pm	ESJ B0322
	Th 2:00pm - 4:30pm	ESJ B0322

CINE335 **Transnational Chinese Cinema**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Cross-listed with: ARTH391. Credit only granted for: ARTH391 or CINE335.

Chinese cinema has made a big impact on contemporary world film culture. This course will introduce students to the films directed by some of the most representative filmmakers working in different geopolitical locations (mainland China, Taiwan, Hong Kong) and the Chinese diaspora. The films of these directors, in a spectrum of genres, themes, and styles, have inspired global scholarship, not only in visual culture and cinema, but also in the study of women's issues, gender and ethnic studies, as well as the fields of adaptation and intermedia studies. Students will explore these films in their socio-historical and artistic contexts, considering the influences and innovations that have shaped them and analyzing their reception by audiences and critics. After reading about the films they view, and participating in class discussions, students will be ready to complete their analytical written assignments, for which they will critically examine the films by applying key concepts such as gender, sexuality, race, gaze, style, representation, power, diaspora, etc.

0101	Jason Kuo	Seats (Total: 25)
	M 1:00pm - 3:30pm	TWS 1313

CINE341 **Filming War Zones: Representations of Wars in Iraq & Chechnya**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: ARAB341. Credit only granted for: ARAB341, CINE341 or FILM341. Formerly: FILM341.

Comparative study of ideological and cultural discourses in war films covering military conflicts in Iraq and Chechnya in late 20th-early 21st centuries. Materials include American, Middle Eastern, and Russian feature films and documentaries; theories of propaganda, ideology and popular culture. Taught in English.

0101	Valerie Anishchenkova	Seats (Total: 25)
	MW 2:00pm - 3:15pm	HJP 2118

CINE359C **Special Topics in Genres/Auteurs/Cinema Movements; Disaster Cinema**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Examine narrative cinema from the perspective of content (themes, issues, structures) and style through the lens of genre, auteurship (a concept of authorship in film studies), and/or historical aesthetic movements that have been influential in the development of cinema as an art and film studies as a field. Content varies.

Credit only granted for CINE359C or FILM359C. Exploration of disaster films in Hollywood and global cinema during the past century. The course will examine disaster films, such as Godzilla, King Kong, and Contagion, as a form of cinema's critical encounter with war, colonialism, and scientific development.

0101	Daniel Richter	Seats (Total: 25)
	TuTh 9:30am - 10:45am	ONLINE

CINE385 **German Cinema**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Cross-listed with: GERS385. Credit only granted for: GERM385, GERS385, CINE385 or FILM385. Formerly: FILM385.

A history of German cinema from the golden age of silent films to the flourishing film culture of the 21st Century. Focuses on changing ideas of the role and purpose of national cinema, as well as the cinematic representation of nation and national identity. Taught in English.

0101	Hester Baer	Seats (Total: 25)
	MW 3:30pm - 4:45pm	JMZ 3205

CINE388 **Experiential Learning: Cinema and Media Studies**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Connects students' theoretical understanding of film studies, as obtained through the classroom, to professional experience.

Contact department for information to register for this course.

CINE419E **Special Topics in Documentary, Animation, Experimental Cinema, and Other Media; Digital Storytelling with Archives**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Advanced studies in Documentary, Animation, Experimental Cinema, and Other Media. Examines the possibilities of non-narrative cinema, or cinema that is structured differently from the fiction feature film, as well as other media (television, digital imagery, and photography) that entertain a close relationship with cinema in terms of form, content, and audience. Content varies.

Prerequisite: Instructor permission required. Cross-listing with MITH498E. Credit only granted for CINE419E or MITH498E. An examination and exercise of the reuse and repurposing of archival audiovisual content in new scholarly or creative work. Part of the course will be a survey and discussion of how different genres incorporate suchvisuals (experimental film vs. documentaries vs. narrative features vs. transmedia/storytelling vs. journalistic outlets), and the other part will be a lab wherein students will create a final media project - short documentary film, video essay, transmedia project, or news story - utilizing archival footage from select sources.

0101	Stephanie Sapienza	Seats (Total: 15)
	TuTh 3:30pm - 4:45pm	Location: TBA

CINE426 **Modern Chinese Film and Visual Culture**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: ARTH484. Credit only granted for: ARTH484, CINE426 or FILM426. Formerly: FILM426.

Modern Chinese culture, society, and history studied through examples of art, film, and visual culture.

0101	Jason Kuo	Seats (Total: 20)
	W 3:00pm - 5:30pm	ASY 3207

CINE429K **Special Topics in National/International Cinemas; Youth, Identity, Nation: A Survey of Quebec Cinema**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Courses in National/International Cinemas may examine one or more national cinematic traditions (including Hollywood cinema), or may look across traditions comparatively, for example at international and/or transnational phenomena. Content varies.

Crosslisted with FREN499C. Credit only granted for FREN499C, CINE429K, or FILM429K. A survey of Quebec cinema, looking at questions of identity, youth culture, gender, sexuality, race, disability, etc. in relationship to the evolution of (post)nationalism, from the 1960s to today. Taught in English.

0101	Mercedes Baillargeon	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	JMZ 3203

CINE469W **Special Topics in Film Theories II; Cinema and Work**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics in film theories.

Exploration of how cinema has represented work and the role of labor in society through its history and across different national traditions.

0101	Luka Arsenjuk	Seats (Total: 25)
	W 3:30pm - 6:00pm	JMZ 2206

CINE499 **Directed Study in Cinema and Media Studies**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Readings and Research in Film Studies under faculty supervison.

Contact department for information to register for this course.

CLAS Classics Spring 2022

CLAS169M **Special Topics in Study Abroad I; Myths and Legends**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CLAS169R **Special Topics in Study Abroad I; Ancient Rome: Civilization and Legacy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CLAS170 **Greek and Roman Mythology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HL General Education: DSHU

Cross-listed with: RELS170. Credit only granted for: CLAS170 or RELS170. Additional information: This course cannot be taken for language credit.

What are myths and why do we tell them? What powers do myths have? We will tackle these questions by looking at the enduring and fascinating myths from ancient Greece and Rome. In addition to studying how they shaped ancient societies, we will also look at their modern influence and reflect upon the power that myths still hold in our contemporary world. Taught in English.

0101	Jorge Bravo MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 21) MMH 1400 HBK 0105	Discussion
0102	Jorge Bravo MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 21) MMH 1400 HBK 0105	Discussion
0103	Jorge Bravo MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 21) MMH 1400 LEF 1171	Discussion
0104	Jorge Bravo MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 21) MMH 1400 PLS 1158	Discussion
0105	Jorge Bravo MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 21) MMH 1400 PLS 1158	Discussion
0106	Jorge Bravo MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 21) MMH 1400 VMH 1107	Discussion
0107	Jorge Bravo MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 21) MMH 1400 ASY 3217	Discussion
0108	Jorge Bravo MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 21) MMH 1400 ASY 3217	Discussion
0109	Jorge Bravo MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 21) MMH 1400 EDU 2102	Discussion

CLAS171 **Classical Myths in Europe**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit

The role which Classical Myths have played in the arts, architecture and politics of a major European city. This will only be offered through the study abroad program.

France

Contact department for information to register for this course.

CLAS276 **Are We Rome?**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DSHU, SCIS

Credit only granted for: CLAS276 or CLAS289A. Formerly: CLAS289A.

America, from its very origins as an independent nation, saw itself as the new Rome: its system of government is built on Roman precedents, its national buildings look as if they came from the Roman Forum, and its leisure activities take us to stadiums modeled on the Colosseum. America's relationship to Rome, however, raises its greatest anxiety: will America fall as Rome did? In 1776, the year of American independence, Edward Gibbon published his History of the Decline and Fall of the Roman Empire; America has been thinking about the trajectory of its history alongside Rome's from the very beginning.

0101	Eric Adler MW 3:00pm - 3:50pm F 10:00am - 10:50am	Seats (Total: 25) ESJ 1224 HBK 0302H	Discussion
0102	Eric Adler MW 3:00pm - 3:50pm F 11:00am - 11:50am	Seats (Total: 25) ESJ 1224 HBK 0302H	Discussion
0103	Eric Adler MW 3:00pm - 3:50pm F 1:00pm - 1:50pm	Seats (Total: 25) ESJ 1224 EDU 3233	Discussion
0104	Eric Adler MW 3:00pm - 3:50pm Th 9:30am - 10:20am	Seats (Total: 25) ESJ 1224 JMZ 0120	Discussion
0105	Eric Adler MW 3:00pm - 3:50pm Th 11:00am - 11:50am	Seats (Total: 25) ESJ 1224 PHY 2213	Discussion

0106	Eric Adler	Seats (Total: 25)	
	MW 3:00pm - 3:50pm Th 12:30pm - 1:20pm	ESJ 1224 JMZ 0120	Discussion

CLAS309B **Special Topics in Classical Literature; Black Classical Tradition**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Readings in translation.

This course will cover various African American authors and how they have found a connection to classic literature. The purpose of this class is to reveal the history of classical studies in the Black community and to show how the literature connects to common themes relevant to all of humanity. In addition, we will explore how African American authors have often used classic literature to help illuminate the message of liberation and equality in their works.

0101	Anika Prather	Seats (Total: 30)
	MWF 3:00pm - 3:50pm	ONLINE

CLAS309F **Special Topics in Classical Literature; Roman Law**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Readings in translation.

An introduction to Roman Civil Law, focusing on cases in the fundamental realm of family law. Constitutional and criminal law will be introduced only as needed to give context. Legal thinking will be a focus of the course, as will critical thinking.

0101	Gregory Bucher	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	ONLINE

CLAS320 **Women in Classical Antiquity**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DSHU, DVUP

Cross-listed with: HIST328W, WGSS320. Credit only granted for: CLAS320, WMST320, WGSS320 or HIST328W.

A study of women's image and reality in ancient Greek and Roman societies through an examination of literary, linguistic, historical, legal, and artistic evidence; special emphasis in women's role in the family, views of female sexuality, and the place of women in creative art. Readings in primary sources in translation and modern critical writings.

0101	Lillian Doherty	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	KNI 1103

CLAS340 **Ancient Slavery and its American Impacts**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP

Cross-listed with: HIST339J. Credit only granted for: CLAS340 or HIST339J.

Interrogates how slavery permeated the ancient Mediterranean societies of Greece and Rome. We will pay particular attention to how hierarchical inequalities are institutionalized, experienced, and represented and to how different marginalized and dominant groups interacted. Enslaved persons performed necessary labor in Greece and Rome and their work was essential for the formation of ancient society in agriculture, mining, domestic spaces, literature, finance, and government. Studying ancient slavery offers a chance to examine Greece and Rome from the bottom up, parsing the scant literary and material evidence for the lives and struggles of enslaved persons. We will practice several different approaches in order to tease out the systematic, economic, political, and personal effects of slavery in the ancient world. The United States of America was also founded as a slave society, and discussions of slavery in the Americas often look back to the ancient Mediterranean. The course will therefore conclude with a unit on how enslavers and abolitionists in the United States utilized and responded to slavery in antiquity.

0101	Katherine Wasdin	Seats (Total: 30)
	TuTh 9:30am - 10:45am	LEF 1220

CLAS374 **Greek Tragedy in Translation**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Study and analysis of the tragedies of Aeschylus, Sophocles and Euripides with special attention to the concepts of character and of thought as conceived by Aristotle in The Poetics.

0101	Francisco Barrenechea	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	AJC 2134

CLAS499 **Independent Study in Classical Languages and Literatures**

(Perm req)

Credits: 1-3 | Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

CLAS499P **Independent Study in Classical Languages and Literatures; Classical Myth in Europe**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

CLAS699 **Independent Study in Classical Civilization**

Credits: 1-3

Grading Method: Regular, Audit

0401	Lillian Doherty	Seats (Total: 1)
	Contact instructor or department for details.	

CLFS Chemical and Life Sciences Spring 2022

CLFS608 **Seminar in Current Topics in Chemical and Life Science; Scholarly Paper**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit

Seminar in current topics in the Life Sciences. Contact Program Director or instructor before registering.

Contact Dr. Brett Kent (bkent@umd.edu) to establish a mentor; and then contact the Office of Extended Studies (oes@umd.edu) to register.

Contact department for information to register for this course.

CLFS608A **Seminar in Current Topics in Chemical and Life Science; Independent Research**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit

Seminar in current topics in the Life Sciences. Contact Program Director or instructor before registering.

Contact the Office of Extended Studies (oes@umd.edu) to register.

Contact department for information to register for this course.

CLFS619B **Special Topics in Chemistry; Environmental Chemistry**

Credits: 3

Grading Method: Regular, Audit

Topics of current interest and special importance.

Must be in the Master of Chemical and Life Sciences program. All other graduate students must request permission. Contact oes@umd.edu.

PLC1	Marjan Alaghmand	Seats (Total: 15)
	Meets February 28, 2022 - May 18, 2022	
	Class time/details on ELMs	ONLINE

CLFS665 **Ecology and Global Change**

Credits: 3 | Grading Method: Regular, Audit

Credit only granted for: LFSC609C or LFSC665. Formerly: LFSC609C.

Ecological concepts across scales ranging from the individual, to populations, communities, ecosystems, and landscapes will be presented. Global change issues will encompass alteration of atmospheric trace gases, biogeochemistry cycles, land use changes, and introduction of non-native species to new habitats.

Must be in the Master of Chemical and Life Sciences program. All other graduate students must request permission. Contact oes@umd.edu.

Click here for more course information.

PLC1	Marcia Shofner **Meets February 28, 2022 - May 18, 2022** Class time/details on ELMs	Seats (Total: 15) ONLINE

CLFS690 **Biochemistry**

Credits: 3 | Grading Method: Regular, Audit

An advanced overview of general biochemistry including a study of protein structure and their physical properties; how these properties relate to catalysis, regulation of catalysis and metabolic chemistry with respect to their relationship to physiological conditions.

Must be in the Master of Chemical and Life Sciences program. All other graduate students must request permission. Contact oes@umd.edu.

Click here for more course information.

PLC1	David Jollie **Meets February 28, 2022 - May 18, 2022** Class time/details on ELMs	Seats (Total: 15) ONLINE

CMLT Comparative Literature Spring 2022

CMLT235 **Black Diaspora Literature and Culture**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL, D | General Education: DSHU, DVUP

Examination of key works by writers of the African Diaspora. Relationship among black people across multiple geographic spaces; Africa, the Caribbean, the United States, Europe, Latin America, and Asia. Specific historical, cultural, and literary contexts; themes such as gender, sexuality, migration, slavery, freedom, and equality. Readings may include literary texts (fiction, poetry, drama), music and film. All readings in English, but drawn from multiple languages of the black diaspora, including English, Spanish, French and Portuguese.

0101	Fredrick Cherry Jr MWF 2:00pm - 2:50pm	Seats (Total: 30) KEY 0121

CMLT270 **Global Literature and Social Change**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL, D | General Education: DSHU, DVUP

Comparative study of literature through selected literary works from several non-Western cultures, viewed cross-culturally in light of particular social, political, and economic perspectives.

0201	Brianne Friel TuTh 12:30pm - 1:45pm	Seats (Total: 30) TWS 1106
0301	Kathryn Karoly TuTh 2:00pm - 3:15pm	Seats (Total: 30) KEY 0121

CMLT275 **World Literature by Women**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL, D | General Education: DSHU, DVUP

Cross-listed with: WGSS275. Credit only granted for: WMST275, CMLT275 or WGSS275. Formerly: WMST275.

Comparative study of selected works by women writers of several countries, exploring points of intersection and divergence in women's literary representations.

0101	Da Som Lee TuTh 12:30pm - 1:45pm	Seats (Total: 30) TWS 1105
0201	Nahid Ahmadian MWF 11:00am - 11:50am	Seats (Total: 30) ARC 1103

CMLT277 **Literatures of the Americas**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL, D | General Education: DSHU, DVUP

Comparative study of several North, South, and Central American cultures with a focus on the specificities, similarities, and divergences of their literary and cultural texts.

0101	Andrea Knowles MWF 10:00am - 10:50am	Seats (Total: 30) KNI 1103	

CMLT280 **Film Art in a Global Society**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA, D | General Education: DSHU, DVUP

Cross-listed with: CINE280. Credit only granted for: CINE280, FILM298D or CMLT280. Formerly: FILM298D.

Comparative study of a variety of film traditions from around the world, including cinema from Hollywood, Europe, Asia and developing countries, with a stress on different cultural contexts for film-making and viewing.

Cross-listed with FILM298D. Credit only granted for: CMLT280 or FILM298D.

0101	Luka Arsenjuk MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 25) TWS 0320 TWS 0236	 Discussion
0102	Luka Arsenjuk MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) TWS 0320 TWS 1107	 Discussion
0103	Luka Arsenjuk MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 25) TWS 0320 TWS 0236	 Discussion
0104	Luka Arsenjuk MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) TWS 0320 TWS 0221	 Discussion

CMLT386 **Experiential Learning**

(Perm req)

Credits: 3-6 | Grading Method: Regular, Pass-Fail

Restriction: Junior standing or higher; and permission of ARHU-English department.

Contact department for information to register for this course.

CMLT398C **Special Topics in Comparative Studies; Cinema of Liberation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics in comparitive studies.

Cross-listed with ENGL329A. Credit granted for CMLT398C or ENGL329A. Repeatable to 9 credits if content differs.

0201	Eugene Robinson	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

CMLT398D **Special Topics in Comparative Studies; The Jazz Paradigm**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics in comparitive studies.

Cross-listed with ENGL379R. Credit granted for CMLT398D or ENGL379R.

0201	Eugene Robinson	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

CMLT679C **Topics in Comparative Studies; Narcolit and Narconarratives**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Seminar in modern and contemporary literature: as announced.

Restriction: Permission of English Department. Repeatable to 9 credits if content differs. Cross-listed with ENGL658C. Credit granted for ENGL658C or CMLT679C.

0101	Sharada Balachandran Orihuela	Seats (Total: 14)
	Tu 3:30pm - 6:00pm	TWS 3136

CMLT699 **Independent Study**

(Perm req)

Credits: 1-6 Grading Method: Regular

Research and writing on specific readings on a topic selected by the student which is approved and supervised by a faculty member.

Contact department for information to register for this course.

CMLT799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CMLT898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

CMLT899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CMSC Computer Science Spring 2022

CMSC100 **Bits and Bytes of Computer and Information Sciences**

Credits: 1 Grading Method: Regular

Restriction: For first time freshmen and first time transfer students. Cross-listed with: INST101. Credit only granted for: CMSC100 or INST101.

Students are introduced to the fields (and disciplines) of computer science and information science within a small classroom setting. They will learn to make a successful transition from high school to the university, while exploring study skills, student success plans and research opportunities.

0101	Amy Vaillancourt Th 3:00pm - 3:50pm	Seats (Total: 40) EGR 0135
0201	Charlotte Avery F 11:00am - 11:50am	Seats (Total: 40) CSI 2120

CMSC106 **Introduction to C Programming**

Credits: 4 Grading Method: Regular

Prerequisite: MATH115. Restriction: Must not be in Computer Science program; and must not have completed any courses from CMSC131-499 course range. Credit only granted for: CMSC106 or CMSC122.

Design and analysis of programs in C. An introduction to computing using structured programming concepts. Intended for students with no or minimal programming experience.

0101	Jandelyn Plane	Seats (Total: 50)	
	MWF 10:00am - 10:50am MW 4:00pm - 4:50pm	ONLINE IRB 2207	Discussion

CMSC122 **Introduction to Computer Programming via the Web**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: IE | General Education: DSSP

Restriction: Must not have completed any courses from CMSC131-499 course range; and must not be concurrently enrolled in CMSC131. Credit only granted for: CMSC106, or CMSC122.

Introduction to computer programming in the context of developing full featured dynamic web sites. Uses a problem solving approach to teach basics of program design and implementation using JavaScript; relates these skills to creation of dynamic web sites; then explores both the potential and limits of web-based information sources for use in research. Intended to help relate a student's major to these emerging technologies.

0101	Jennifer Manly	Seats (Total: 90)
	MWF 4:00pm - 4:50pm	IRB 1116

CMSC125 **Introduction to Computing**

Credits: 3 | Grading Method: Regular

Prerequisite: Must have completed or be concurrently enrolled in MATH115 or higher. Restriction: Must not be in the Computer Science program; and must not have completed any courses from CMSC131-499; and must not have completed BMGT302, IMDM127 or INST126.

Introduces you to the computing field as a whole. You will gain skills used across the spectrum of computing majors and learn about the great variety of routes into the various areas of study and employment in technological fields.

0101	Elias Gonzalez	Seats (Total: 90)
	MWF 1:00pm - 1:50pm	IRB 1116

CMSC131 **Object-Oriented Programming I**

Credits: 4 | Grading Method: Regular

Corequisite: MATH140. Credit only granted for: CMSC131 or IMDM127.

Introduction to programming and computer science. Emphasizes understanding and implementation of applications using object-oriented techniques. Develops skills such as program design and testing as well as implementation of programs using a graphical IDE. Programming done in Java.

0101	Pedram Sadeghian MWF 1:00pm - 1:50pm TuTh 8:00am - 8:50am	Seats (Total: 34) IRB 0324 CSI 2120	 Discussion
0102	Pedram Sadeghian MWF 1:00pm - 1:50pm TuTh 9:30am - 10:20am	Seats (Total: 34) IRB 0324 CSI 2120	 Discussion
0103	Pedram Sadeghian MWF 1:00pm - 1:50pm TuTh 9:30am - 10:20am	Seats (Total: 34) IRB 0324 CSI 2118	 Discussion
0104	Pedram Sadeghian MWF 1:00pm - 1:50pm TuTh 11:00am - 11:50am	Seats (Total: 34) IRB 0324 CSI 2120	 Discussion
0105	Pedram Sadeghian MWF 1:00pm - 1:50pm TuTh 11:00am - 11:50am	Seats (Total: 34) IRB 0324 CSI 2118	 Discussion
0106	Pedram Sadeghian MWF 1:00pm - 1:50pm TuTh 12:30pm - 1:20pm	Seats (Total: 34) IRB 0324 CSI 2118	 Discussion
0201	Ilchul Yoon MWF 2:00pm - 2:50pm TuTh 2:00pm - 2:50pm	Seats (Total: 34) IRB 0324 CSI 3120	 Discussion
0202	Ilchul Yoon MWF 2:00pm - 2:50pm TuTh 9:30am - 10:20am	Seats (Total: 34) IRB 0324 CSI 3118	 Discussion
0203	Ilchul Yoon MWF 2:00pm - 2:50pm TuTh 11:00am - 11:50am	Seats (Total: 34) IRB 0324 CSI 3120	 Discussion
0204	Ilchul Yoon MWF 2:00pm - 2:50pm TuTh 11:00am - 11:50am	Seats (Total: 34) IRB 0324 CSI 3118	 Discussion

0205	Ilchul Yoon MWF 2:00pm - 2:50pm TuTh 12:30pm - 1:20pm	Seats (Total: 30) IRB 0324 CSI 3120	 Discussion
0206	Ilchul Yoon MWF 2:00pm - 2:50pm TuTh 12:30pm - 1:20pm	Seats (Total: 34) IRB 0324 CSI 3118	 Discussion

CMSC132 **Object-Oriented Programming II**

Credits: 4 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC131; or must have earned a score of 5 on the A Java AP exam; or must have earned a satisfactory score on the departmental placement exam. And minimum grade of C- in MATH140.

Introduction to use of computers to solve problems using software engineering principles. Design, build, test, and debug medium -size software systems and learn to use relevant tools. Use object-oriented methods to create effective and efficient problem solutions. Use and implement application programming interfaces (APIs). Programming done in Java.

0101	Nelson Padua-Perez MWF 4:00pm - 4:50pm MW 8:00am - 8:50am	Seats (Total: 35) IRB 0324 CSI 1122	 Discussion
0102	Nelson Padua-Perez MWF 4:00pm - 4:50pm MW 9:00am - 9:50am	Seats (Total: 35) IRB 0324 CSI 1122	 Discussion
0103	Nelson Padua-Perez MWF 4:00pm - 4:50pm MW 10:00am - 10:50am	Seats (Total: 35) IRB 0324 CSI 1121	 Discussion
0104	Nelson Padua-Perez MWF 4:00pm - 4:50pm MW 12:00pm - 12:50pm	Seats (Total: 35) IRB 0324 CSI 1121	 Discussion
0105	Nelson Padua-Perez MWF 4:00pm - 4:50pm MW 1:00pm - 1:50pm	Seats (Total: 35) IRB 0324 CSI 1122	 Discussion

0106	Nelson Padua-Perez MWF 4:00pm - 4:50pm MW 2:00pm - 2:50pm	Seats (Total: 35) IRB 0324 CSI 2120	Discussion
0107	Nelson Padua-Perez MWF 4:00pm - 4:50pm MW 3:00pm - 3:50pm	Seats (Total: 35) IRB 0324 CSI 2120	Discussion
0108	Nelson Padua-Perez MWF 4:00pm - 4:50pm MW 3:00pm - 3:50pm	Seats (Total: 35) IRB 0324 CSI 1122	Discussion
0201	Fawzi Emad MWF 10:00am - 10:50am MW 11:00am - 11:50am	Seats (Total: 35) IRB 0324 CSI 1122	Discussion
0202	Fawzi Emad MWF 10:00am - 10:50am MW 12:00pm - 12:50pm	Seats (Total: 35) IRB 0324 CSI 1122	Discussion
0203	Fawzi Emad MWF 10:00am - 10:50am MW 1:00pm - 1:50pm	Seats (Total: 35) IRB 0324 CSI 1121	Discussion
0204	Fawzi Emad MWF 10:00am - 10:50am MW 2:00pm - 2:50pm	Seats (Total: 35) IRB 0324 CSI 1121	Discussion
0205	Fawzi Emad MWF 10:00am - 10:50am MW 2:00pm - 2:50pm	Seats (Total: 35) IRB 0324 CSI 1122	Discussion
0206	Fawzi Emad MWF 10:00am - 10:50am MW 3:00pm - 3:50pm	Seats (Total: 35) IRB 0324 CSI 1121	Discussion
0207	Fawzi Emad MWF 10:00am - 10:50am MW 3:00pm - 3:50pm	Seats (Total: 35) IRB 0324 CSI 3120	Discussion

0208	Fawzi Emad MWF 10:00am - 10:50am MW 4:00pm - 4:50pm	Seats (Total: 35) IRB 0324 CSI 2120	 Discussion
0301	Fawzi Emad MWF 11:00am - 11:50am MW 12:00pm - 12:50pm	Seats (Total: 35) IRB 0324 IRB 1207	 Discussion
0302	Fawzi Emad MWF 11:00am - 11:50am MW 12:00pm - 12:50pm	Seats (Total: 35) IRB 0324 IRB 2107	 Discussion
0303	Fawzi Emad MWF 11:00am - 11:50am MW 1:00pm - 1:50pm	Seats (Total: 35) IRB 0324 IRB 1207	 Discussion
0304	Fawzi Emad MWF 11:00am - 11:50am MW 1:00pm - 1:50pm	Seats (Total: 35) IRB 0324 IRB 2107	 Discussion
0305	Fawzi Emad MWF 11:00am - 11:50am MW 2:00pm - 2:50pm	Seats (Total: 35) IRB 0324 IRB 1207	 Discussion
0306	Fawzi Emad MWF 11:00am - 11:50am MW 3:00pm - 3:50pm	Seats (Total: 35) IRB 0324 IRB 2107	 Discussion
0401	Pedram Sadeghian MWF 12:00pm - 12:50pm MW 8:00am - 8:50am	Seats (Total: 32) CSI 1115 CSI 1121	 Discussion
0402	Pedram Sadeghian MWF 12:00pm - 12:50pm MW 9:00am - 9:50am	Seats (Total: 32) CSI 1115 CSI 1121	 Discussion
0403	Pedram Sadeghian MWF 12:00pm - 12:50pm MW 10:00am - 10:50am	Seats (Total: 32) CSI 1115 CSI 1122	 Discussion

0404	Pedram Sadeghian MWF 12:00pm - 12:50pm MW 11:00am - 11:50am	Seats (Total: 32) CSI 1115 CSI 1121	 Discussion

CMSC216 **Introduction to Computer Systems**

(Perm req)

Credits: 4 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC132; and minimum grade of C- in MATH141. Restriction: Must be in a major within the CMNS-Computer Science department; or must be in Engineering: Computer program; or must be in the Computer Science Minor program; and Permission of CMSC - Computer Science department.

Introduction to the interaction between user programs and the operating system/hardware. Major topics include C programming, introductory systems programming, and assembly language. Other concepts covered include UNIX, machine data representation, thread management, optimization, and virtual memory. Programming is done in the Linux Environment.

0101	Larry Herman TuTh 2:00pm - 3:15pm MW 12:00pm - 12:50pm	Seats (Total: 32) IRB 0324 CSI 3118	 Discussion
0102	Larry Herman TuTh 2:00pm - 3:15pm MW 10:00am - 10:50am	Seats (Total: 36) IRB 0324 CSI 3120	 Discussion
0103	Larry Herman TuTh 2:00pm - 3:15pm MW 11:00am - 11:50am	Seats (Total: 36) IRB 0324 CSI 3120	 Discussion
0104	Larry Herman TuTh 2:00pm - 3:15pm MW 12:00pm - 12:50pm	Seats (Total: 36) IRB 0324 CSI 3120	 Discussion
0105	Larry Herman TuTh 2:00pm - 3:15pm MW 1:00pm - 1:50pm	Seats (Total: 36) IRB 0324 CSI 3120	 Discussion
0106	Larry Herman TuTh 2:00pm - 3:15pm MW 2:00pm - 2:50pm	Seats (Total: 36) IRB 0324 CSI 3120	 Discussion

0107	Larry Herman TuTh 2:00pm - 3:15pm MW 2:00pm - 2:50pm	Seats (Total: 32) IRB 0324 CSI 3118	Discussion
0108	Larry Herman TuTh 2:00pm - 3:15pm MW 1:00pm - 1:50pm	Seats (Total: 32) IRB 0324 CSI 3118	Discussion
0201	Larry Herman TuTh 3:30pm - 4:45pm MW 8:00am - 8:50am	Seats (Total: 35) IRB 0324 IRB 2207	Discussion
0203	Larry Herman TuTh 3:30pm - 4:45pm MW 9:00am - 9:50am	Seats (Total: 35) IRB 0324 IRB 2107	Discussion
0204	Larry Herman TuTh 3:30pm - 4:45pm MW 9:00am - 9:50am	Seats (Total: 35) IRB 0324 IRB 2207	Discussion
0205	Larry Herman TuTh 3:30pm - 4:45pm MW 10:00am - 10:50am	Seats (Total: 35) IRB 0324 IRB 2207	Discussion
0206	Larry Herman TuTh 3:30pm - 4:45pm MW 10:00am - 10:50am	Seats (Total: 35) IRB 0324 IRB 2107	Discussion
0207	Larry Herman TuTh 3:30pm - 4:45pm MW 11:00am - 11:50am	Seats (Total: 35) IRB 0324 IRB 2107	Discussion
0208	Larry Herman TuTh 3:30pm - 4:45pm MW 11:00am - 11:50am	Seats (Total: 35) IRB 0324 IRB 2207	Discussion

CMSC250 **Discrete Structures**

(Perm req) Credits: 4 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC131; and minimum grade of C- in MATH141. Restriction: Must be in a major within the CMNS-Computer Science department; or must be in Engineering: Computer program; or must be in the Computer Science Minor program; and Permissions of CMSC - Computer Science department.

Fundamental mathematical concepts related to computer science, including finite and infinite sets, relations, functions, and propositional logic. Introduction to other techniques, modeling and solving problems in computer science. Introduction to permutations, combinations, graphs, and trees with selected applications.

0101	Mohammad Nayeem Teli TuTh 11:00am - 12:15pm MW 9:00am - 9:50am	Seats (Total: 32) IRB 0324 CSI 2118	Discussion
0102	Mohammad Nayeem Teli TuTh 11:00am - 12:15pm MW 10:00am - 10:50am	Seats (Total: 32) IRB 0324 CSI 2118	Discussion
0103	Mohammad Nayeem Teli TuTh 11:00am - 12:15pm MW 11:00am - 11:50am	Seats (Total: 32) IRB 0324 CSI 2118	Discussion
0104	Mohammad Nayeem Teli TuTh 11:00am - 12:15pm MW 12:00pm - 12:50pm	Seats (Total: 32) IRB 0324 CSI 2118	Discussion
0105	Mohammad Nayeem Teli TuTh 11:00am - 12:15pm MW 1:00pm - 1:50pm	Seats (Total: 32) IRB 0324 CSI 2118	Discussion
0106	Mohammad Nayeem Teli TuTh 11:00am - 12:15pm MW 2:00pm - 2:50pm	Seats (Total: 32) IRB 0324 CSI 2118	Discussion
0107	Mohammad Nayeem Teli TuTh 11:00am - 12:15pm MW 3:00pm - 3:50pm	Seats (Total: 32) IRB 0324 CSI 2118	Discussion
0108	Mohammad Nayeem Teli TuTh 11:00am - 12:15pm MW 4:00pm - 4:50pm	Seats (Total: 32) IRB 0324 CSI 2118	Discussion

0201	Cliff Bakalian TuTh 9:30am - 10:45am MW 9:00am - 9:50am	Seats (Total: 34) ESJ 0202 CSI 2107	Discussion
0202	Cliff Bakalian TuTh 9:30am - 10:45am MW 3:00pm - 3:50pm	Seats (Total: 34) ESJ 0202 CSI 2107	Discussion
0203	Cliff Bakalian TuTh 9:30am - 10:45am MW 11:00am - 11:50am	Seats (Total: 34) ESJ 0202 CSI 2107	Discussion
0204	Cliff Bakalian TuTh 9:30am - 10:45am MW 12:00pm - 12:50pm	Seats (Total: 32) ESJ 0202 CSI 2107	Discussion
0205	Cliff Bakalian TuTh 9:30am - 10:45am MW 1:00pm - 1:50pm	Seats (Total: 32) ESJ 0202 CSI 2107	Discussion
0206	Cliff Bakalian TuTh 9:30am - 10:45am MW 2:00pm - 2:50pm	Seats (Total: 34) ESJ 0202 CSI 2107	Discussion
0207	Cliff Bakalian TuTh 9:30am - 10:45am MW 3:00pm - 3:50pm	Seats (Total: 32) ESJ 0202 CSI 3118	Discussion
0208	Cliff Bakalian TuTh 9:30am - 10:45am MW 10:00am - 10:50am	Seats (Total: 33) ESJ 0202 CSI 2107	Discussion
0209	Cliff Bakalian TuTh 9:30am - 10:45am MW 12:00pm - 12:50pm	Seats (Total: 32) ESJ 0202 CSI 2120	Discussion
0301	Cliff Bakalian TuTh 3:30pm - 4:45pm MW 9:00am - 9:50am	Seats (Total: 31) IRB 1116 CSI 2120	Discussion

0302	Cliff Bakalian TuTh 3:30pm - 4:45pm MW 10:00am - 10:50am	Seats (Total: 31) IRB 1116 CSI 2120	 Discussion
0303	Cliff Bakalian TuTh 3:30pm - 4:45pm MW 11:00am - 11:50am	Seats (Total: 31) IRB 1116 CSI 2120	 Discussion

CMSC250H **Discrete Structures**

(Perm req)

Credits: 4 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC131; and minimum grade of C- in MATH141. Restriction: Must be in a major within the CMNS-Computer Science department; or must be in Engineering: Computer program; or must be in the Computer Science Minor program; and Permissions of CMSC - Computer Science department.

Fundamental mathematical concepts related to computer science, including finite and infinite sets, relations, functions, and propositional logic. Introduction to other techniques, modeling and solving problems in computer science. Introduction to permutations, combinations, graphs, and trees with selected applications.

Prerequisite: Minimum grade of C- in CMSC131; and minimum grade of C- in MATH141; and permission of CMNS-Computer Science department.

0101	William Gasarch TuTh 12:30pm - 1:45pm MW 9:00am - 9:50am	Seats (Total: 30) IRB 2207 IRB 1207	 Discussion

CMSC298A **Special Topics in Computer Science**

(Perm req)

Credits: 1-4 Grading Method: Sat-Fail

A course designed to allow a lower level student to pursue a specialized topic or project.

Contact department for information to register for this course.

CMSC320 **Introduction to Data Science**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250. Restriction: Permission of CMNS-Computer Science department. Credit only granted for: STAT426 or CMSC320.

An introduction to the data science pipeline, i.e., the end-to-end process of going from unstructured, messy data to knowledge and actionable insights. Provides a broad overview of several topics including statistical data analysis, basic data mining and machine learning algorithms, large-scale data management, cloud computing, and information visualization.

0101	Elias Gonzalez MW 3:30pm - 4:45pm	Seats (Total: 100) IRB 0318	
0201	Jose Calderon MW 5:00pm - 6:15pm	Seats (Total: 281) IRB 0324	

CMSC330 **Organization of Programming Languages**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC250 and CMSC216. Restriction: Must be in a major within the CMNS-Computer Science department; or must be in the Computer Science Minor program; or must be in Engineering: Computer program; and Permission of CMSC - Computer Science department.

A study of programming languages, including their syntax, semantics, and implementation. Several different models of languages are discussed, including dynamic, scripting (e.g., Ruby, Python) functional (e.g., OCaml, Haskell, Scheme), and memory safe systems programming (e.g., Rust). Explores language features such as formal syntax, scoping and binding of variables, higher-order programming, typing, and type polymorphism. Introduces finite automata, context free grammar, parsing, lambda calculus, and basics of security attacks and software security.

0101	Cliff Bakalian TuTh 11:00am - 12:15pm F 9:00am - 9:50am	Seats (Total: 34) ESJ 0202 IRB 1207	 Discussion
0102	Cliff Bakalian TuTh 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 34) ESJ 0202 IRB 2107	 Discussion
0103	Cliff Bakalian TuTh 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 34) ESJ 0202 IRB 1207	 Discussion
0104	Cliff Bakalian TuTh 11:00am - 12:15pm F 2:00pm - 2:50pm	Seats (Total: 33) ESJ 0202 IRB 2107	 Discussion

0105	Cliff Bakalian TuTh 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 33) ESJ 0202 IRB 1207	Discussion
0106	Cliff Bakalian TuTh 11:00am - 12:15pm F 3:00pm - 3:50pm	Seats (Total: 33) ESJ 0202 IRB 2107	Discussion
0107	Cliff Bakalian TuTh 11:00am - 12:15pm F 12:00pm - 12:50pm	Seats (Total: 33) ESJ 0202 IRB 1207	Discussion
0108	Cliff Bakalian TuTh 11:00am - 12:15pm F 12:00pm - 12:50pm	Seats (Total: 33) ESJ 0202 IRB 2107	Discussion
0109	Cliff Bakalian TuTh 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 33) ESJ 0202 IRB 2107	Discussion
0110	Cliff Bakalian TuTh 11:00am - 12:15pm F 2:00pm - 2:50pm	Seats (Total: 34) ESJ 0202 IRB 2207	Discussion
0201	David Van Horn TuTh 12:30pm - 1:45pm F 9:00am - 9:50am	Seats (Total: 34) IRB 0324 CSI 3120	Discussion
0202	David Van Horn TuTh 12:30pm - 1:45pm F 10:00am - 10:50am	Seats (Total: 34) IRB 0324 CSI 3120	Discussion
0203	David Van Horn TuTh 12:30pm - 1:45pm F 4:00pm - 4:50pm	Seats (Total: 34) IRB 0324 IRB 2107	Discussion
0204	David Van Horn TuTh 12:30pm - 1:45pm F 12:00pm - 12:50pm	Seats (Total: 33) IRB 0324 CSI 3120	Discussion

0205	David Van Horn TuTh 12:30pm - 1:45pm F 1:00pm - 1:50pm	Seats (Total: 33) IRB 0324 CSI 3120	Discussion
0206	David Van Horn TuTh 12:30pm - 1:45pm F 2:00pm - 2:50pm	Seats (Total: 33) IRB 0324 CSI 3120	Discussion
0207	David Van Horn TuTh 12:30pm - 1:45pm F 2:00pm - 2:50pm	Seats (Total: 33) IRB 0324 CSI 2120	Discussion
0208	David Van Horn TuTh 12:30pm - 1:45pm F 3:00pm - 3:50pm	Seats (Total: 33) IRB 0324 CSI 2120	Discussion
0209	David Van Horn TuTh 12:30pm - 1:45pm F 3:00pm - 3:50pm	Seats (Total: 33) IRB 0324 CSI 3120	Discussion

CMSC335 **Web Application Development with JavaScript**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250. Restriction: Permission of CMNS-Computer Science Department. Credit only granted for: CMSC389N or CMSC335. Formerly: CMSC389N.

Provides an introduction to modern ways of developing Web Applications/Services using JavaScript for both front-end and back-end. The course covers topics on fundamental JavaScript language constructs, server-side JavaScript, back-end data persistence, and client-side JavaScript to build Web Applications that interact with Web services and back-end databases.

0101	Nelson Padua-Perez MW 2:00pm - 3:15pm	Seats (Total: 260) BRB 1101	

CMSC351 **Algorithms**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC250 and CMSC216. Restriction: Must be in a major within the CMNS-Computer Science department; or must be in Engineering: Computer program; or must be in the Computer Science Minor program; and Permission from the CMSC - Computer Science department. Credit only granted for: CMSC251 or CMSC351.

A systematic study of the complexity of some elementary algorithms related to sorting, graphs and trees, and combinatorics. Algorithms are analyzed using mathematical techniques to solve recurrences and summations.

0101	Erika Melder MWF 9:00am - 9:50am	Seats (Total: 300) IRB 0324
0201	Erika Melder MWF 10:00am - 10:50am	Seats (Total: 145) CSI 1115
0301	Justin Wyss-Gallifent TuTh 9:30am - 10:45am	Seats (Total: 300) IRB 0324

CMSC388J **Special Topics in Computer Science; Building Secure Web Applications with Python and Flask**

(Perm req)

Credits: 1 Grading Method: Regular

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisites: Minimum grade of C- in CMSC250 and CMSC216; and permission of CMNS-Computer Science department. Students are introduced to building secure, full-stack web applications with Python and Flask. Different types of security vulnerabilities and best practices to patch in students own applications will be examined.

0101	Michael Marsh W 4:00pm - 4:50pm	Seats (Total: 32) CSI 1122

CMSC388U **Special Topics in Computer Science; Introduction to Ethical Hacking (Hack the Class)**

(Perm req)

Credits: 1 Grading Method: Regular

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisites: Minimum grade of C- in CMSC250 and CMSC216; and permission of CMNS-Computer Science department.

0101	Dave Levin F 1:00pm - 1:50pm	Seats (Total: 30) CSI 1122

CMSC388X **Special Topics in Computer Science; Introduction to Programming Language Theory**

(Perm req)

Credits: 2 Grading Method: Regular

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisite: Minimum grade of C- in CMSC250 and CMSC216; and permission of CMNS-Computer Science department. CMSC330 is also strongly recommended as a prerequisite or co-requisite.

0101	Leonidas Lampropoulos MW 12:00pm - 12:50pm	Seats (Total: 30) CSI 3117

CMSC389E **Special Topics in Computer Science; Digital Logic Design through Minecraft**

(Perm req)

Credits: 1 Grading Method: Regular

Seminar courses that allow students to pursue new and emerging areas of Computer Science; course may be used as electives for the undergraduate degree and minor.

Prerequisites: Minimum grade of C- in CMSC250 and CMSC216; and permission of CMNS-Computer Science department. Explores the fundamentals of digital logic design using Minecraft's Redstone. Using the low-level and intuitive visualization of circuitry Redstone provides, you will create a series of projects that apply principles of digital logic design learned in class.

0101	Roger Eastman F 3:00pm - 3:50pm	Seats (Total: 32) CSI 1122

CMSC389F **Special Topics in Computer Science; Reinforcement Learning**

(Perm req)

Credits: 1 Grading Method: Regular

Seminar courses that allow students to pursue new and emerging areas of Computer Science; course may be used as electives for the undergraduate degree and minor.

Prerequisite: Minimum grade of C- in CMSC250 and CMSC216; and permission of CMNS-Computer Science department.

0101	John Dickerson F 2:00pm - 2:50pm	Seats (Total: 34) CSI 1122

CMSC389G **Special Topics in Computer Science; What to do After Landing a SWE Job**

(Perm req)

Credits: 1 Grading Method: Regular

Seminar courses that allow students to pursue new and emerging areas of Computer Science; course may be used as electives for the undergraduate degree and minor.

Prerequisite: Minimum grade of C- in CMSC250 and CMSC216; and permission of CMNS-Computer Science department.

0101	Garrett Vanhoy F 12:00pm - 12:50pm	Seats (Total: 35) CSI 1122

CMSC389O **Special Topics in Computer Science; The Coding Interview**

(Perm req)

Credits: 1 Grading Method: Regular

Seminar courses that allow students to pursue new and emerging areas of Computer Science; course may be used as electives for the undergraduate degree and minor.

Prerequisites: Minimum grade of C- in CMSC250 and CMSC216; and permission of CMNS-Computer Science department.

0101	Thomas Goldstein F 11:00am - 11:50am	Seats (Total: 35) CSI 1121
0201	Thomas Goldstein F 12:00pm - 12:50pm	Seats (Total: 35) CSI 1121
0301	Thomas Goldstein F 1:00pm - 1:50pm	Seats (Total: 35) CSI 1121
0401	Thomas Goldstein F 2:00pm - 2:50pm	Seats (Total: 35) CSI 1121
0501	Thomas Goldstein F 3:00pm - 3:50pm	Seats (Total: 35) CSI 1121

CMSC389P **Special Topics in Computer Science; Mastering the PM Interview**

(Perm req)

Credits: 1 Grading Method: Regular

Seminar courses that allow students to pursue new and emerging areas of Computer Science; course may be used as electives for the undergraduate degree and minor.

Prerequisites: Minimum grade of C- in CMSC250 and CMSC216; and permission of CMNS-Computer Science department.

0101	Michelle Mazurek F 11:00am - 11:50am	Seats (Total: 35) CSI 1122

CMSC389T **Special Topics in Computer Science; Introduction to Git, Github and Project Management**

(Perm req)

Credits: 1 Grading Method: Regular

Seminar courses that allow students to pursue new and emerging areas of Computer Science; course may be used as electives for the undergraduate degree and minor.

Prerequisite: Minimum grade of C- in CMSC250 and CMSC216; and permission of CMNS-Computer Science department.

0101	Cliff Bakalian F 3:00pm - 3:50pm	Seats (Total: 32) CSI 2107

CMSC390 **Honors Paper**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Must be admitted to the Computer Science Honors Program.

Special study or research directed toward preparation of honors paper.

Contact department for information to register for this course.

CMSC395 **Teaching Techniques for Computer Science**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Restriction: Students must be hired as a teaching assistant in the Computer Science Department for the semester they are registered for the course; and permission of the Computer Science Department.

This course will assure that teaching assistants become better skilled at applying effective teaching practices that improve the classroom environment while learning methods to implement mechanisms to improve diversity and inclusion. Legal and ethical aspects of the role will also be considered. Students in the class will be currently working as a teaching assistant and, therefore, be able to apply what they are learning immediately in their own context.

0101	Jandelyn Plane F 2:00pm - 2:50pm	Seats (Total: 90) IRB 1116

CMSC411 **Computer Systems Architecture**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC330; or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program. Restriction: Permission of CMNS-Computer Science department. Credit only granted for: ENEE446 or CMSC411.

Input/output processors and techniques. Intra-system communication, buses, caches. Addressing and memory hierarchies. Microprogramming, parallelism, and pipelining.

0101	Ilchul Yoon	Seats (Total: 140)	
	MWF 1:00pm - 1:50pm	CSI 1115	

CMSC412 **Operating Systems**

(Perm req)

Credits: 4 Grading Method: Regular CORE: CS

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; and 1 course with a minimum grade of C- from (CMSC414, CMSC417, CMSC420, CMSC430, CMSC433, CMSC435, ENEE440, ENEE457). Restriction: Permission of CMNS-Computer Science department; or must be in one of the following programs (Computer Science (Master's); Computer Science (Doctoral)). Credit only granted for: CMSC412 or ENEE447.

A hands-on introduction to operating systems, including topics in: multiprogramming, communication and synchronization, memory management, IO subsystems, and resource scheduling polices. The laboratory component consists of constructing a small kernel, including functions for device IO, multi-tasking, and memory management.

0101	A Shankar	Seats (Total: 40)	
	TuTh 11:00am - 12:15pm	CSI 2117	
	MW 10:00am - 10:50am	IRB 1207	Discussion
0102	A Shankar	Seats (Total: 40)	
	TuTh 11:00am - 12:15pm	CSI 2117	
	MW 11:00am - 11:50am	IRB 1207	Discussion

CMSC414 **Computer and Network Security**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program. Restriction: Permission of CMNS-Computer Science department. Credit only granted for: CMSC414, ENEE459C, or ENEE457.

An introduction to the topic of security in the context of computer systems and networks. Identify, analyze, and solve network-related security problems in computer systems. Fundamentals of number theory, authentication, and encryption technologies, as well as the practical problems that have to be solved in order to make those technologies workable in a networked environment, particularly in the wide-area Internet environment.

0101	Michelle Mazurek	Seats (Total: 70)	
	TuTh 9:30am - 10:45am	IRB 1116	

0201	Michael Marsh TuTh 3:30pm - 4:45pm	Seats (Total: 156) ESJ 1224

CMSC417 **Computer Networks**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC351 and CMSC330; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Computer networks and architectures. The OSI model including discussion and examples of various network layers. A general introduction to existing network protocols. Communication protocol specification, analysis, and testing.

0101	Nirupam Roy TuTh 2:00pm - 3:15pm	Seats (Total: 120) CSI 1115

CMSC420 **Advanced Data Structures**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC351 and CMSC330; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Description, properties, and storage allocation functions of data structures including balanced binary trees, B-Trees, hash tables, skiplists, tries, KD-Trees and Quadtrees. Algorithms for manipulating structures. Applications from areas such as String Processing, Computer Graphics, Information Retrieval, Computer Networks, Computer Vision, and Operating Systems.

0101	David Mount TuTh 11:00am - 12:15pm	Seats (Total: 145) CSI 1115
0201	Roger Eastman TuTh 9:30am - 10:45am	Seats (Total: 145) CSI 1115
0301	Michelle Hugue TuTh 3:30pm - 4:45pm	Seats (Total: 140) ONLINE

CMSC421 **Introduction to Artificial Intelligence**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC351 and CMSC330; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Introduces a range of ideas and methods in AI, varying semester to semester but chosen largely from: automated heuristic search, planning, games, knowledge representation, logical and statistical inference, learning, natural language processing, vision, robotics, cognitive modeling, and intelligent agents. Programming projects will help students obtain a hands-on feel for various topics.

0201	William Regli MW 3:30pm - 4:45pm	Seats (Total: 88) CSI 3117

CMSC422 **Introduction to Machine Learning**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC320, CMSC330, and CMSC351; and 1 course with a minimum grade of C- from (MATH240, MATH461); and permission of CMNS-Computer Science department.

Machine Learning studies representations and algorithms that allow machines to improve their performance on a task from experience. This is a broad overview of existing methods for machine learning and an introduction to adaptive systems in general. Emphasis is given to practical aspects of machine learning and data mining.

Credit only granted for CMSC422 or CMSC498M.

0101	Furong Huang TuTh 2:00pm - 3:15pm	Seats (Total: 100) IRB 0318
0201	Soheil Feizi TuTh 3:30pm - 4:45pm	Seats (Total: 100) IRB 0318

CMSC423 **Bioinformatic Algorithms, Databases, and Tools**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC351 and CMSC330; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

An introduction to the main algorithms, databases, and tools used in bioinformatics. Topics may include assembly and analysis of genome sequences, reconstructing evolutionary histories, predicting protein structure, and clustering of biological data. Use of scripting languages to perform analysis tasks on biological data. No prior knowledge of biology is assumed.

0101	Mihai Pop	Seats (Total: 88)
	TuTh 11:00am - 12:15pm	CSI 3117

CMSC424 **Database Design**

(Perm req)

Credits: 3 Grading Method: Regular CORE: CS

Prerequisite: Minimum grade of C- in CMSC351 and CMSC330; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Students are introduced to database systems and motivates the database approach as a mechanism for modeling the real world. An in-depth coverage of the relational model, logical database design, query languages, and other database concepts including query optimization, concurrency control; transaction management, and log based crash recovery. Distributed and Web database architectures are also discussed.

0101	Peter Keleher	Seats (Total: 145)
	MW 3:30pm - 4:45pm	CSI 1115

CMSC425 **Game Programming**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC420.

An introduction to the principles and practice of computer game programming and design. This includes an introduction to game hardware and systems, the principles of game design, object and terrain modeling, game physics, artificial intelligence for games, networking for games, rendering and animation, and aural rendering. Course topics are reinforced through the design and implementation of a working computer game.

0101	Stevens Miller	Seats (Total: 85)
	TuTh 12:30pm - 1:45pm	IRB 1116

CMSC426 **Computer Vision**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351 and 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program; or permission of the instructor. Restriction: Permission of CMNS-Computer Science department.

An introduction to basic concepts and techniques in computervision. This includes low-level operations such as image filtering and edge detection, 3D reconstruction of scenes using stereo and structure from motion, and object detection, recognition and classification.

0101	Christopher Metzler MW 2:00pm - 3:15pm	Seats (Total: 100) IRB 0318
0201	Mohammad Nayeem Teli TuTh 3:30pm - 4:45pm	Seats (Total: 110) CSI 1115

CMSC430 **Introduction to Compilers**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Topics include lexical analysis, parsing, intermediate representations, program analysis, optimization, and code generation.

0101	Jose Calderon TuTh 9:30am - 10:45am	Seats (Total: 100) IRB 0318

CMSC433 **Programming Language Technologies and Paradigms**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC330; or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program. Restriction: Permission of CMNS-Computer Science department.

Programming language technologies (e.g., object-oriented programming), their implementations and use in software design and implementation.

0101	Liyi Li TuTh 12:30pm - 1:45pm	Seats (Total: 194) EGR 1202

CMSC434 **Introduction to Human-Computer Interaction**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Assess usability by quantitative and qualitative methods. Conduct task analyses, usability tests, expert reviews, and continuing assessments of working products by interviews, surveys, and logging. Apply design processes and guidelines to develop professional quality user interfaces. Build low-fidelity paper mockups, and a high-fidelity prototype using contemporary tools such as graphic editors and a graphical programming environment (eg: Visual Basic, Java).

0101	Evan Golub TuTh 12:30pm - 1:45pm	Seats (Total: 52) IRB 2107
0201	Evan Golub TuTh 11:00am - 12:15pm	Seats (Total: 52) IRB 2107
0301	Evan Golub TuTh 2:00pm - 3:15pm	Seats (Total: 52) IRB 2107

CMSC435 **Software Engineering**

(Perm req)

Credits: 3 Grading Method: Regular CORE: CS

Prerequisite: 1 course with a minimum grade of C- from (CMSC412, CMSC417, CMSC420, CMSC430, CMSC433, ENEE447); and permission of CMNS-Computer Science department.

State-of-the-art techniques in software design and development. Laboratory experience in applying the techniques covered. Structured design, structured programming, top-down design and development, segmentation and modularization techniques, iterative enhancement, design and code inspection techniques, correctness, and chief-programmer teams. The development of a large software project.

0101	James Purtilo TuTh 2:00pm - 3:15pm	Seats (Total: 48) CSI 1121
0201	Garrett Vanhoy TuTh 9:30am - 10:45am	Seats (Total: 51) CSI 2117

CMSC436 **Programming Handheld Systems**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program. Restriction: Permission of CMNS-Computer Science department.

Fundamental principles and concepts that underlie the programming of handheld systems, such as mobile phones, personal digital assistants, and tablet computers. Particular emphasis will be placed on concepts such as limited display size, power, memory and CPU speed; and new input modalities, where handheld systems differ substantially from non-handheld systems, and thus require special programming tools and approaches. Students will apply these concepts and principles in the context of an existing handset programming platform.

0101	Michael Marsh	Seats (Total: 156)
	TuTh 2:00pm - 3:15pm	ESJ 1224
	Course will be based on the iOS platform. Students must have access to a Macintosh computer to participate.	
0201	Adam Porter	Seats (Total: 120)
	TuTh 9:30am - 10:45am	ESJ 1202
	Course will be based on the Android platform. (No Android hardware is required -- students can use simulators.)	

CMSC451 **Design and Analysis of Computer Algorithms**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC351; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Fundamental techniques for designing efficient computer algorithms, proving their correctness, and analyzing their complexity. General topics include graph algorithms, basic algorithm design paradigms (such as greedy algorithms, divide-and-conquer, and dynamic programming), network flows, NP-completeness, and other selected topics in algorithms.

0101	Andrew Childs	Seats (Total: 112)
	TuTh 12:30pm - 1:45pm	CSI 1115

CMSC452 **Elementary Theory of Computation**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC351; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Techniques are developed to determine the difficulty of a problem relative to a model of computation. Topics include Finite Automata, P, NP, decidability, undecidability, and communication complexity.

0101	Clyde Kruskal	Seats (Total: 80)
	TuTh 3:30pm - 4:45pm	CSI 2117

CMSC454 **Algorithms for Data Science**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351. Restriction: Permission of CMSC-Computer Science department. Credit only granted for: CMSC454 or CMSC498U. Formerly: CMSC498U.

Fundamental methods for processing a high volume of data. Methods include stream processing, locally sensitive hashing, web search methods, page rank computation, network and link analysis, dynamic graph algorithms as well as methods to handle high dimensional data/dimensionality reduction.

0101	Aravind Srinivasan TuTh 11:00am - 12:15pm	Seats (Total: 90) IRB 1116

CMSC456 **Cryptography**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: (CMSC106, CMSC131, or ENEE150; or equivalent programming experience); and (2 courses from (CMSC330, CMSC351, ENEE324, or ENEE380); or any one of these courses and a 400-level MATH course, or two 400-level MATH courses); and Permission of CMNS-Mathematics department or permission of instructor . Cross-listed with: MATH456, ENEE456. Credit only granted for: MATH456, CMSC456 or ENEE456.

The theory, application, and implementation of mathematical techniques used to secure modern communications. Topics include symmetric and public-key encryption, message integrity, hash functions, block-cipher design and analysis, number theory, and digital signatures.

0101	Justin Wyss-Gallifent MWF 11:00am - 11:50am	Seats (Total: 64) CSI 3117
0201	Jonathan Katz TuTh 9:30am - 10:45am	Seats (Total: 80) CSI 3117
0301	Dana Dachman-Soled MW 2:00pm - 3:15pm	Seats (Total: 50) KEB 1110

CMSC457 **Introduction to Quantum Computing**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: 1 course with a minimum grade of C- from (MATH240, PHYS274); and 1 course with a minimum grade of C- from (CMSC351, PHYS373). Restriction: Permission of CMNS-Computer Science department. Additional information: No previous background in quantum mechanics is required.

An introduction to the concept of a quantum computer, including algorithms that outperform classical computation and methods for performing quantum computation reliably in the presence of noise. As this is a multidisciplinary subject, the course will cover basic concepts in theoretical computer science and physics in addition to introducing core quantum computing topics.

Cross-listed with PHYS457. Credit only granted for CMSC457 or PHYS457.

0101	Xiaodi Wu TuTh 11:00am - 12:15pm	Seats (Total: 40) IRB 1207

CMSC460 **Computational Methods**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (CMSC106, CMSC131); and minimum grade of C- in MATH246. Cross-listed with: AMSC460. Credit only granted for: AMSC460, AMSC466, CMSC460, or CMSC466.

Basic computational methods for interpolation, least squares, approximation, numerical quadrature, numerical solution of polynomial and transcendental equations, systems of linear equations and initial value problems for ordinary differential equations. Emphasis on methods and their computational properties rather than their analytic aspects. Intended primarily for students in the physical and engineering sciences.

0101	Tobias von Petersdorff MWF 2:00pm - 2:50pm	Seats (Total: 30) MTH 0103
0201	Vladimir Yushutin TuTh 9:30am - 10:45am	Seats (Total: 30) ITV 1100
0301	Vladimir Yushutin TuTh 12:30pm - 1:45pm	Seats (Total: 30) ITV 1100
0401	Christopher Moakler TuTh 2:00pm - 3:15pm	Seats (Total: 30) ITV 1100

CMSC466 **Introduction to Numerical Analysis I**

(Perm req) Credits: 3 Grading Method: Regular

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (CMSC106, CMSC131); and minimum grade of C- in MATH410. Cross-listed with: AMSC466. Credit only granted for: AMSC460, CMSC460, AMSC466, or CMSC466.

Floating point computations, direct methods for linear systems, interpolation, solution of nonlinear equations.

0101	Maria Cameron	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	PHY 2214

CMSC470 Introduction to Natural Language Processing

(Perm req) Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC320, CMSC330, and CMSC351; and 1 course with a minimum grade of C- from (MATH240, MATH461). Restriction: Permission of CMNS-Computer Science department.

Introduction to fundamental techniques for automatically processing and generating natural language with computers. Machine learning techniques, models, and algorithms that enable computers to deal with the ambiguity and implicit structure of natural language. Application of these techniques in a series of assignments designed to address a core application such as question answering or machine translation.

0101	Rachel Rudinger	Seats (Total: 70)
	TuTh 12:30pm - 1:45pm	CSI 3117

CMSC471 Introduction to Data Visualization

(Perm req) Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; and permission of CMNS-Computer Science Department. Restriction: Permission of the CMNS-Computer Science Department. Credit only granted for: CMSC471 or CMSC498O. Formerly: CMSC498O.

Datasets are becoming increasingly large and complex, requiring intuitive ways to explore and interpret them quickly and efficiently. In this case, a picture is worth a thousand words: visualizations enable us to transform data into images that are easier to understand and reason about, compared to raw numbers and raw text. Visualizations are critical tools in externalizing and organizing our knowledge and insights, whether to explore collected datasets to improve our understanding of the physical world, to assess and debug analysis/experimental workflows, or to present new and interesting results to diverse audiences. In this course we will study techniques and algorithms for creating effective visualizations based on principles from graphic design, perceptual psychology, and cognitive science. Students will learn how to design and build interactive visualizations for the web, using the D3.js (Data-Driven Documents) framework.

0101	Zhicheng Liu	Seats (Total: 70)
	MW 2:00pm - 3:15pm	CSI 2117

CMSC475 **Combinatorics and Graph Theory**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340). And permission of CMNS-Computer Science department; or permission of CMNS-Mathematics department. Cross-listed with MATH475 .

General enumeration methods, difference equations, generating functions. Elements of graph theory, matrix representations of graphs, applications of graph theory to transport networks, matching theory and graphical algorithms.

0101	Wiseley Wong	Seats (Total: 35)
	MWF 11:00am - 11:50am	PHY 2122

CMSC488B **Special Topics in Computer Science; Advanced Functional Programming**

(Perm req)

Credits: 3 Grading Method: Regular

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351. Advanced functional programming using Haskell. Students will be introduced to a range of modern software engineering practices, in particular those embodied in typed, functional programming languages. Basic knowledge of functional programming in the form of OCaml (from 330) is assumed, but not prior knowledge of Haskell. Basic topics will include typeclasses, monads, and property-based testing; advanced topics may include high-level type system features such as GADTs, verification with Liquid Haskell, and practical application development, with invited talks from industry and academia experts.

0101	Leonidas Lampropoulos	Seats (Total: 38)
	TuTh 2:00pm - 3:15pm	CSI 3118

CMSC498A **Selected Topics in Computer Science**

(Perm req)

Credits: 1-3 Grading Method: Regular

An individualized course designed to allow a student or students to pursue a selected topic not taught as a part of the regular course offerings under the supervision of a Computer Science faculty member. In addition, courses dealing with topics of special interest and/or new emerging areas of computer science will be offered with this number. Selected topics courses will be structured very much like a regular course with homework, project and exams. Credit according to work completed

Contact department for information to register for this course.

CMSC498F **Selected Topics in Computer Science; Advances in XR**

(Perm req)

Credits: 3 Grading Method: Regular

An individualized course designed to allow a student or students to pursue a selected topic not taught as a part of the regular course offerings under the supervision of a Computer Science faculty member. In addition, courses dealing with topics of special interest and/or new emerging areas of computer science will be offered with this number. Selected topics courses will be structured very much like a regular course with homework, project and exams. Credit according to work completed

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351. AR, VR, and MR, collectively referred to as XR, are becoming ubiquitous for human-computer interaction with limitless applications and potential use. This course examines advances on real-time multi-modal XR systems in which the user is 'immersed' in and interacts with a simulated 3D environment. The topics will include display, modeling, 3D graphics, haptics, audio, locomotion, animation, applications, immersion and presence.

0101	Ming Lin	Seats (Total: 34)
	TuTh 3:30pm - 4:45pm	IRB 2207

CMSC498Q **Selected Topics in Computer Science; Algorithms for Geospatial Computing**

(Perm req)

Credits: 3 Grading Method: Regular

An individualized course designed to allow a student or students to pursue a selected topic not taught as a part of the regular course offerings under the supervision of a Computer Science faculty member. In addition, courses dealing with topics of special interest and/or new emerging areas of computer science will be offered with this number. Selected topics courses will be structured very much like a regular course with homework, project and exams. Credit according to work completed

Prerequisite: GEOG276 or minimum grade of C- in CMSC330 and CMSC351 or permission of instructor. Jointly offered with: GEOG470 and GEOG770. Credit only granted for: CMSC498Q, GEOG470, GEOG498I, GEOG770, or GEOG788I.

0101	Leila De Floriani	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	LEF 2166

CMSC498T **Selected Topics in Computer Science; Applied Mechanism Design for Social Good**

(Perm req)

Credits: 3 Grading Method: Regular

An individualized course designed to allow a student or students to pursue a selected topic not taught as a part of the regular course offerings under the supervision of a Computer Science faculty member. In addition, courses dealing with topics of special interest and/or new emerging areas of computer science will be offered with this number. Selected topics courses will be structured very much like a regular course with homework, project and exams. Credit according to work completed

Prerequisite: CMSC351. Recommended: MATH240, CMSC320, or CMSC422. How do we allocate food to food banks, children to schools, organs to patients, residents to hospitals, security forces to patrol routes, and credit to multiple authors of an open source project-all in the face of competing incentives affecting selfish participants? Can we design mechanisms for these problems that perform well in practice, are computationally tractable, and whose workings and results are understandable by humans? To answer these questions, we devise models and solutions at the intersection of artificial intelligence, economics, and theoretical computer science.

0101	John Dickerson	Seats (Total: 60)
	MW 2:00pm - 3:15pm	IRB 1116

CMSC498Y **Selected Topics in Computer Science; Statistical Inference and Machine Learning Methods for Genomics Data**

(Perm req)

Credits: 3 Grading Method: Regular

An individualized course designed to allow a student or students to pursue a selected topic not taught as a part of the regular course offerings under the supervision of a Computer Science faculty member. In addition, courses dealing with topics of special interest and/or new emerging areas of computer science will be offered with this number. Selected topics courses will be structured very much like a regular course with homework, project and exams. Credit according to work completed

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351. Covers statistical inference and machine learning methods for analyzing genomic data. Examples of topics covered will include maximum likelihood (including composite and pseudo-likelihood functions), expectation-maximization, clustering algorithms, hidden markov models, statistical testing, MCMC and variational inference. Our focus will be on how these techniques are utilized to solve biological problems and the practical challenges that arise when analyzing large genomic data sets.

0101	Erin Molloy	Seats (Total: 40)
	TuTh 9:30am - 10:45am	IRB 2207

CMSC499A **Independent Undergraduate Research**

(Perm req)

Credits: 1-3 Grading Method: Regular

Students are provided with an opportunity to participate in a computer science research project under the guidance of a faculty advisor. Format varies. Students and supervising faculty member will agree to a research plan which must be approved by the department. As part of each research plan, students should produce a final paper delineating their contribution to the field.

Contact department for information to register for this course.

CMSC661 **Scientific Computing II**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Must have knowledge of C or Fortran. And CMSC466, AMSC466, AMSC460, or CMSC460; or (must have knowledge of basic numerical analysis (linear equations, nonlinear equations, integration, interpolation); and permission of instructor). Cross-listed with: AMSC661. Credit only granted for: AMSC661 or CMSC661.

Fourier and wavelet transform methods, numerical methods for elliptic partial differential equations, numerical linear algebra for sparse matrices, Finite element methods, numerical methods for time dependent partial differential equations. Techniques for scientific computation with an introduction to the theory and software for each topic. Course is part of a two course sequence (660 and 661), but can be taken independently.

0101	Maria Cameron	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	MTH 0403

CMSC664 **Advanced Scientific Computing II**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: AMSC663 or CMSC663. Restriction: Permission of instructor. Cross-listed with: AMSC664. Credit only granted for: AMSC664 or CMSC664.

In the sequence Advanced Scientific Computing I & Advanced Scientific Computing II, (AMSC663/CMSC663 and CMSC664/CMSC664, respectively) students work on a year-long individual project to develop software for a scientific task in a high performance computing environment. Lectures will be given on available computational environments, code development, implementation of parallel algorithms.

0101	Howard Elman	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	EGR 1110

CMSC711 **Computer Networks**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: CMSC412; or students who have taken courses with comparable content may contact the department.

Priciples, design, and performance evaluation of computer networks. Network architectures including the ISO model and local area networks (LANs). Communication protocols and network topology.

0101	Samrat Bhattacharjee	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	KEB 1200

CMSC722 Artificial Intelligence Planning

Credits: 3

Grading Method: Regular, Audit

Prerequisite: CMSC421; or students who have taken courses with comparable content may contact the department; or permission of CMNS-Computer Science department.

Automated planning of actions to accomplish some desired goals. Basic algorithms, important systems, and new directions in the field of artificial intelligence planning systems.

0101	Dana Nau	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	IRB 2207

CMSC724 Database Management Systems

Credits: 3

Grading Method: Regular, Audit

Restriction: Must be in one of the following programs (Computer Science (Master's); Computer Science (Doctoral)) ; or permission of instructor; or permission of CMNS-Computer Science department.

Theoretical and implementation issues in advanced database systems. Topics include distributed databases, parallel databases, database client-server architectures, multimedia access methods, advanced query optimization techniques, data semantics and models, object-oriented databases, and deductive and expert database systems.

0101	Amol Deshpande	Seats (Total: 40)
	MW 2:00pm - 3:15pm	IRB 2207

CMSC725 Geographical Information Systems and Spatial Databases

Credits: 3

Grading Method: Regular, Audit

Prerequisite: CMSC424 and CMSC420; or permission of instructor.

Topics in geographic information systems and spatial databases. Integrates related results from databases, cartography, geography, computer graphics, file access methods, computational geometry, image processing, data structures, and programming languages. Topics include: cartographic modeling, principles of cartography, methods from computational geometry, principles of spatial databases, access methods, and spatial data structures. The architecture of some existing spatial databases and geographic information systems will be examined in greater detail.

0101	Hanan Samet	Seats (Total: 45)
	TuTh 9:30am - 10:45am	CSI 1121

CMSC727 **Neural Modeling**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: CMSC421; or students who have taken courses with comparable content may contact the department; or permission of instructor.

Fundamental methods of neural modeling. Surveys historical development and recent research results from both the computational and dynamical systems perspective. Logical neurons, perceptrons, linear adaptive networks, attractor neural networks, competitive activation methods, error back-propagation, self-organizing maps, and related topics. Applications in artificial intelligence, cognitive science, and neuroscience.

0101	James Reggia	Seats (Total: 42)
	TuTh 12:30pm - 1:45pm	ONLINE

CMSC733 **Computer Processing of Pictorial Information**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: CMSC420.

Input, output, and storage of pictorial information. Pictures as information sources, efficient encoding, sampling, quantization, approximation. Position-invariant operations on pictures, digital and optical implementations, the pax language, applications to matched and spatial frequency filtering. Picture quality, image enhancement and image restoration. Picture properties and pictorial pattern recognition. Processing of complex pictures; figure extraction, properties of figures. Data structures for pictures description and manipulation; picture languages. Graphics systems for alphanumeric and other symbols, line drawings of two- and three-dimensional objects, cartoons and movies.

0101	John Aloimonos	Seats (Total: 45)
	TuTh 12:30pm - 1:45pm	CSI 1121

CMSC752 **Ramsey Theory and its Applications**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Any CMSC45X course or any 400-level math course. Credit only granted for: CMSC858R or CMSC752. Formerly: CMSC858R.

Theorems about when a coloring of a graph (or other objects) has to yield a nice monochromatic object. Applications will be to computer science theory and to mathematics.

0101	William Gasarch	Seats (Total: 43)
	TuTh 3:30pm - 4:45pm	CSI 2107

CMSC764 **Advanced Numerical Optimization**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH410; or permission of instructor. Cross-listed with: AMSC607. Credit only granted for: AMSC607 or CMSC764. Formerly: CMSC878O.

Modern numerical methods for solving unconstrained and constrained nonlinear optimization problems in finite dimensions. Design of computational algorithms and the analysis of their properties.

0101	Thomas Goldstein	Seats (Total: 100)
	TuTh 11:00am - 12:15pm	IRB 0318

CMSC798 **Master's Non-Thesis Research**

(Perm req)

Credits: 1-3 Grading Method: Regular

Contact department for information to register for this course.

CMSC799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CMSC800 **How to Conduct Great Research**

Credits: 1 Grading Method: Sat-Fail, Audit

Restriction: Must be in the Computer Science doctoral program. Credit only granted for: CMSC798F or CMSC800. Formerly: CMSC798F.

Develop research skills so as to promote high quality and high impact.

0101	Ramani Duraiswami	Seats (Total: 110)
	F 11:00am - 11:50am	ONLINE

CMSC818G **Advanced Topics in Computer Systems; Information-Centric Design of Systems**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics selected by the faculty from the literature of computer systems to suit the interest and background of students.

0101	Ashok Agrawala	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	CSI 2107

CMSC828I **Advanced Topics in Information Processing; Multilingual Natural Language Processing**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty from the literature of information processing to suit the interest and background of students.

0101	Marine Carpuat	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	CSI 1122

CMSC828L **Advanced Topics in Information Processing; Deep Learning**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty from the literature of information processing to suit the interest and background of students.

0101	David Jacobs	Seats (Total: 70)
	TuTh 12:30pm - 1:45pm	CSI 2117

CMSC828O **Advanced Topics in Information Processing; Computational and Mathematical Analysis for Networks Across Scales**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics selected by the faculty from the literature of information processing to suit the interest and background of students.

0101	Michelle Girvan	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	HJP 2242

CMSC838C **Advanced Topics in Programming Languages; Advances in XR**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics selected by faculty from the literature of programming languages to suit the interest and background of students.

AR, VR, and MR, collectively referred to as XR, are becoming ubiquitous for human-computer interaction with limitless applications and potential use. This course examines advances on real-time multi-modal XR systems in which the user is 'immersed' in and interacts with a simulated 3D environment. The topics will include display, modeling, 3D graphics, haptics, audio, locomotion, animation, applications, immersion and presence.

0101	Ming Lin	Seats (Total: 35)
	TuTh 3:30pm - 4:45pm	IRB 2207

CMSC838E **Advanced Topics in Programming Languages; Compiler Construction**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by faculty from the literature of programming languages to suit the interest and background of students.

0101	David Van Horn	Seats (Total: 40)
	TuTh 9:30am - 10:45am	IRB 1207

CMSC848Q **Selected Topics in Information Processing; How and Why Artificial Intelligence Answers Questions**

Credits: 3 Grading Method: Regular, Audit

Selected topics by the faculty from the literature of information processing to suit the interest and background of students.

0101	Jordan Boyd-Graber	Seats (Total: 50)
	MW 2:00pm - 3:15pm	CSI 3117

CMSC858D **Advanced Topics in Theory of Computing; Algorithms, Data Structures and Inference for High-throughput Genomics**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty from the literature of theory of computing to suit the interest and background of students.

Restriction: Must be a graduate student in CMSC or BISI program.

0101	Robert Patro	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	CSI 1121

CMSC858F **Advanced Topics in Theory of Computing; Algorithmic Lower Bounds: Fun with Hardness Proofs**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty from the literature of theory of computing to suit the interest and background of students.

0101	Mohammad Hajiaghayi	Seats (Total: 40)
	F 9:00am - 11:50am	CSI 2118

CMSC858Q **Advanced Topics in Theory of Computing; Classical and Quantum Codes**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty from the literature of theory of computing to suit the interest and background of students.

Prerequisites: MATH405 or MATH461, and ENEE324; or students who have taken courses with comparable content may contact the department. Cross-listing with MATH729C and ENEE729C and PHYS889C. Credit only granted forENEE729C, CMSC858Q, MATH729C, or PHYS899C. The course will cover topics in classical and quantum coding theory from the unified perspective of protecting information in classical communication and supporting fault-tolerant computations in quantum computers. Topics in classical codes include: Reed-Solomon codes, codes on algebraic curves, Reed-Muller codes, polar codes, rank metric codes. Topics in quantum codes include: stabilizer codes, CSS codes, GKP codes, polynomial codes, toric code. See www.ece.umd.edu/~abarg/CQC for further details.

0101	Alexander Barg, Victor Albert	Seats (Total: 36)
	MW 11:00am - 12:15pm	PHY 2124

CMSC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Advanced topics selected by the faculty from the literature of applications of computer science to suit the interest and background of students.

Contact department for information to register for this course.

CMSC899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

COMM Communication Spring 2022

COMM107 **Oral Communication: Principles and Practices**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: FSOC

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130 or THET285.

A study of and practice in oral communication, including principles of interviewing, group discussion, listening, informative briefings, and persuasive speeches.

0101	Donia Galarowicz MWF 8:00am - 8:50am	Seats (Total: 19) SKN 0104
0201	Jim Golden MWF 8:00am - 8:50am	Seats (Total: 19) SKN 1112
0301	Aaron Swanlek MWF 8:00am - 8:50am	Seats (Total: 19) SKN 1115
0401	Haejung Shin MWF 8:00am - 8:50am	Seats (Total: 19) PLS 1176
1101	Donia Galarowicz MWF 9:00am - 9:50am	Seats (Total: 19) SKN 0104
1201	Jim Golden MWF 9:00am - 9:50am	Seats (Total: 19) SKN 1112
1301	Daviana Fraser MWF 9:00am - 9:50am	Seats (Total: 19) SKN 1115
1401	Haejung Shin MWF 9:00am - 9:50am	Seats (Total: 19) PLS 1176

1601	Ran Ma MWF 9:00am - 9:50am	Seats (Total: 19) PLS 1184
2301	Faith Otchere MWF 10:00am - 10:50am	Seats (Total: 19) SKN 0104
2401	Tatenda Mashanda MWF 10:00am - 10:50am	Seats (Total: 19) SKN 1112
2501	Sean Rhodes MWF 10:00am - 10:50am	Seats (Total: 19) SKN 1115
2601	Daniel Foster MWF 10:00am - 10:50am	Seats (Total: 19) PLS 1176
2701	Carolyn Robbins MWF 10:00am - 10:50am	Seats (Total: 19) PLS 1180
2801	Ran Ma MWF 10:00am - 10:50am	Seats (Total: 19) PLS 1184
3101	Kalin Schultz MWF 10:00am - 10:50am	Seats (Total: 19) HBK 1108
3201	Daviana Fraser MWF 10:00am - 10:50am	Seats (Total: 19) VMH 1207
3301	Faith Otchere MWF 11:00am - 11:50am	Seats (Total: 19) SKN 0104
3401	Tatenda Mashanda MWF 11:00am - 11:50am	Seats (Total: 19) SKN 1112
3501	Sean Rhodes MWF 11:00am - 11:50am	Seats (Total: 19) SKN 1115
3601	Daniel Foster MWF 11:00am - 11:50am	Seats (Total: 19) PLS 1176
3701	Jim Golden MWF 11:00am - 11:50am	Seats (Total: 19) PLS 1180

3801	Jade Olson MWF 11:00am - 11:50am	Seats (Total: 19) PLS 1184
3901	Ari Perez Montes MWF 11:00am - 11:50am	Seats (Total: 19) PLS 1115
4101	Kalin Schultz MWF 11:00am - 11:50am	Seats (Total: 19) HBK 1108
4301	Tong Lin MWF 1:00pm - 1:50pm	Seats (Total: 19) SKN 1112
4401	Lingyan Ma MWF 1:00pm - 1:50pm	Seats (Total: 19) SKN 1115
4501	Kimberli Munoz MWF 1:00pm - 1:50pm	Seats (Total: 19) PLS 1176
4601	Daniel Foster MWF 1:00pm - 1:50pm	Seats (Total: 19) PLS 1180
4701	Jim Golden MWF 1:00pm - 1:50pm	Seats (Total: 19) PLS 1184
4801	Jade Olson MWF 1:00pm - 1:50pm	Seats (Total: 19) VMH 1107
4901	Victoria McDermott MWF 2:00pm - 2:50pm	Seats (Total: 19) SKN 0104
5001	Tong Lin MWF 2:00pm - 2:50pm	Seats (Total: 19) SKN 1112
5101	Lingyan Ma MWF 2:00pm - 2:50pm	Seats (Total: 19) SKN 1115
5201	Kimberli Munoz MWF 2:00pm - 2:50pm	Seats (Total: 19) PLS 1176
5301	Daniel Foster MWF 2:00pm - 2:50pm	Seats (Total: 19) PLS 1180

5401	Aaron Swanlek MWF 2:00pm - 2:50pm	Seats (Total: 19) PLS 1184
5601	Janna Soeder MW 2:00pm - 3:15pm	Seats (Total: 19) TLF 1101
5701	Mollie Kaufer MW 2:00pm - 3:15pm	Seats (Total: 19) TLF 1103
5801	Ayodeji Dapherede-Otusanya MW 2:00pm - 3:15pm	Seats (Total: 19) PLS 1111
6101	Daniel Foster MW 3:30pm - 4:45pm	Seats (Total: 19) TLF 1101
6201	Mollie Kaufer MW 3:30pm - 4:45pm	Seats (Total: 19) TLF 1103
6701	Duli Shi MW 5:00pm - 6:15pm	Seats (Total: 19) SKN 1115
6801	Jim Golden MW 5:00pm - 6:15pm	Seats (Total: 19) PLS 1176
7301	Alisa Hardy TuTh 8:00am - 9:15am	Seats (Total: 19) SKN 0104
7401	Shilin Xia TuTh 8:00am - 9:15am	Seats (Total: 19) SKN 1112
7501	Miriam Komuhendo TuTh 8:00am - 9:15am	Seats (Total: 19) SKN 1115
7601	Viktoriia Savchuk TuTh 8:00am - 9:15am	Seats (Total: 19) PLS 1176
7701	Elizabeth Phipps TuTh 8:00am - 9:15am	Seats (Total: 19) PLS 1180
7801	Olivia Truban TuTh 8:00am - 9:15am	Seats (Total: 19) PLS 1184

8101	Alisa Hardy TuTh 9:30am - 10:45am	Seats (Total: 19) SKN 0104
8201	Umisha Kc TuTh 9:30am - 10:45am	Seats (Total: 19) SKN 1112
8301	Miriam Komuhendo TuTh 9:30am - 10:45am	Seats (Total: 19) SKN 1115
8401	Viktoriia Savchuk TuTh 9:30am - 10:45am	Seats (Total: 19) PLS 1176
8501	Christopher Swift TuTh 9:30am - 10:45am	Seats (Total: 19) PLS 1180
8601	Olivia Truban TuTh 9:30am - 10:45am	Seats (Total: 19) PLS 1184
8701	Cassondra Pope TuTh 9:30am - 10:45am	Seats (Total: 19) PLS 1117
8901	Sabeen Sheikh TuTh 11:00am - 12:15pm	Seats (Total: 19) SKN 0104
9001	Neha Kamran TuTh 11:00am - 12:15pm	Seats (Total: 19) SKN 1112
9101	Naette Lee TuTh 11:00am - 12:15pm	Seats (Total: 19) SKN 1115
9201	Xin Ma TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1176
9301	Ashley Aragon TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1180
9401	Cassondra Pope TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1184
9501	Saymin Lee TuTh 11:00am - 12:15pm	Seats (Total: 19) CCC 1100

9601	Sabeen Sheikh TuTh 12:30pm - 1:45pm	Seats (Total: 19) SKN 0104
9701	Neha Kamran TuTh 12:30pm - 1:45pm	Seats (Total: 19) SKN 1112
9801	Naette Lee TuTh 12:30pm - 1:45pm	Seats (Total: 19) SKN 1115
9901	Xin Ma TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1176
9902	Darrian Carroll, Thomas McCloskey TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1180
9903	Umisha Kc TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1184
9904	Saymin Lee TuTh 12:30pm - 1:45pm	Seats (Total: 19) CCC 1100
9905	Soyoung Bae TuTh 2:00pm - 3:15pm	Seats (Total: 19) SKN 0104
9906	Darrian Carroll TuTh 2:00pm - 3:15pm	Seats (Total: 19) SKN 1112
9907	Ashley Aragon TuTh 2:00pm - 3:15pm	Seats (Total: 19) SKN 1115
9908	Jiawen Zhang TuTh 2:00pm - 3:15pm	Seats (Total: 19) PLS 1176
9909	Delight Agboada TuTh 2:00pm - 3:15pm	Seats (Total: 19) PLS 1180
9910	Thomas McCloskey, Jeannette Iannacone TuTh 2:00pm - 3:15pm	Seats (Total: 19) PLS 1184
9911	Aya Farhat TuTh 3:30pm - 4:45pm	Seats (Total: 19) SKN 0104

9912	Jeremy Grossman TuTh 3:30pm - 4:45pm	Seats (Total: 19) SKN 1112
9913	Christopher Swift TuTh 3:30pm - 4:45pm	Seats (Total: 19) SKN 1115
9914	L Gordon TuTh 3:30pm - 4:45pm	Seats (Total: 19) PLS 1176
9915	Delight Agboada TuTh 3:30pm - 4:45pm	Seats (Total: 19) PLS 1180
9916	Shilin Xia TuTh 3:30pm - 4:45pm	Seats (Total: 19) PLS 1184
9917	Megan Fromm TuTh 5:00pm - 6:15pm	Seats (Total: 19) SKN 0104
9918	Cassondra Pope TuTh 5:00pm - 6:15pm	Seats (Total: 19) SKN 1112
9920	Aya Farhat TuTh 5:00pm - 6:15pm	Seats (Total: 19) PLS 1176
9921	Jeremy Grossman TuTh 5:00pm - 6:15pm	Seats (Total: 19) PLS 1180
9923	L Gordon TuTh 6:30pm - 7:45pm	Seats (Total: 19) SKN 0104

COMM107B **Oral Communication: Principles and Practices**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSOC

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130 or THET285.

A study of and practice in oral communication, including principles of interviewing, group discussion, listening, informative briefings, and persuasive speeches.

0101	Melissa Lucas	Seats (Total: 19)
	TuTh 12:30pm - 1:45pm	JMZ 2120
	This class is designed for current or prospective Business Majors.	

COMM107C **Oral Communication: Principles and Practices**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSOC

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130 or THET285.

A study of and practice in oral communication, including principles of interviewing, group discussion, listening, informative briefings, and persuasive speeches.

0101	Cassondra Pope	Seats (Total: 19)
	TuTh 8:00am - 9:15am	PLS 1162
	This class is designed for current or prospective STEM students.	

COMM107D **Oral Communication: Principles and Practices**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSOC

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130 or THET285.

A study of and practice in oral communication, including principles of interviewing, group discussion, listening, informative briefings, and persuasive speeches.

0101	Ashley Aragon	Seats (Total: 19)
	TuTh 8:00am - 9:15am	PLS 1168
	This class is designed for students committed to community engagement and social change. Guided by a model of service learning, students will work alongside the Do Good Institute to enact change in their communities.	

COMM130 **Professional Communication and Writing**

Credits: 1 | Grading Method: Regular, Pass-Fail

Restriction: Must be in the Communication major.

Designed to enhance the clarity and grace of students' writing. Students will acquire knowledge of writing based on principles of style and grammar as well as argument and organizational structure across a diversity of professional writing contexts. Students will also engage in peer review of one another's writing.

0101	Skye De Saint Felix F 11:00am - 11:50am	Seats (Total: 50) ONLINE
0201	Skye De Saint Felix F 12:00pm - 12:50pm	Seats (Total: 50) ONLINE
0301	Mollie Kaufer F 11:00am - 11:50am	Seats (Total: 50) ONLINE

COMM200 **Critical Thinking and Speaking**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO | General Education: FSOC

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130, OR THET285.

Theory and practice of persuasive discourse analysis and composition. Research techniques, logical and rhetorical conceptions of argument, and technical principles for persuading in public venues.

0101	Christopher Swift TuTh 12:30pm - 1:45pm	Seats (Total: 19) ARC 1127
0201	Christopher Swift TuTh 2:00pm - 3:15pm	Seats (Total: 19) ARC 1123
0301	Aaron Swanlek MWF 11:00am - 11:50am	Seats (Total: 19) VMH 1107
0401	Aaron Swanlek MWF 10:00am - 10:50am	Seats (Total: 19) VMH 1107

COMM201 **Introduction to Public Relations**

Credits: 3 | Grading Method: Regular, Pass-Fail

Prerequisite: Must have completed or be concurrently enrolled in COMM130. Restriction: Must be in the Communication major.

Basic concepts and principles of public relations. Roles in organizations and society; history; skills and practices of public relations; theories and models of effective and ethical public relations.

0101	Sun Young Lee TuTh 2:00pm - 3:15pm	Seats (Total: 60) CHE 2108

COMM230 **Argumentation and Debate**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

A study of the fundamental principles of reasoning, analysis, and evidence preparation of debate briefs and presentation of standard academic debate.

0101	Megu Itoh TuTh 8:00am - 9:15am	Seats (Total: 24) EDU 3236	
0401	Megu Itoh TuTh 9:30am - 10:45am	Seats (Total: 24) LEF 1171	

COMM250 **Introduction to Communication Inquiry**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

An introduction to the field of communication. Definitions, models, and contexts of communication; rhetorical theory and rhetorical criticism of discourse.

This is a blended learning course.

0101	Raphael Mazzone MW 11:00am - 11:50am Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 23) SKN 0200 ONLINE SQH 2120	Discussion
0102	Raphael Mazzone MW 11:00am - 11:50am Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 23) SKN 0200 ONLINE SQH 2120	Discussion
0103	Raphael Mazzone MW 11:00am - 11:50am Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 23) SKN 0200 ONLINE SQH 2120	Discussion
0104	Raphael Mazzone MW 11:00am - 11:50am Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 23) SKN 0200 ONLINE SYM 0209	Discussion

0105	Raphael Mazzone MW 11:00am - 11:50am Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 23) SKN 0200 ONLINE SYM 0209	Discussion
0106	Raphael Mazzone MW 11:00am - 11:50am Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 23) SKN 0200 ONLINE SYM 0209	Discussion
0109	Raphael Mazzone MW 11:00am - 11:50am Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 23) SKN 0200 ONLINE EDU 1315	Discussion

COMM269B **Special Topics in Study Abroad II; Oral Communication for Leaders in the Business World**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM269C **Special Topics in Study Abroad II; Designing Communicatoin Campaigns**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM269M **Special Topics in Study Abroad II; Media Technology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM269P **Special Topics in Study Abroad II; Principles of Film and Media Production**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM269V **Special Topics in Study Abroad II; Visual Communication: Intercultural Photography**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM288 **Communication Internship**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

An individual experience arranged by the student with the instructor. Does not satisfy communication major requirements. 45 hours of supervised internship per credit hour with communication professional. Not a substitute for COMM386.

0101	Julie Gowin Contact instructor or department for details.	Seats (Total: 20)
0601	Leah Waks Contact instructor or department for details.	Seats (Total: 20)

COMM301 **Rhetorical Theories**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM130, COMM250; and one course from STAT100, BMGT230, EDMS451, CCJS200, PSYC200, or SOCY201; and one course from COMM107, COMM200, or COMM230; and must have completed or be concurrently enrolled in COMM304. Restriction: Must be in the Communication major. Credit only granted for: COMM301 or COMM401.

Explores the idea of rhetoric, from antiquity to digitality. Rhetoric, as an art of moving bodies, is central to democratic self-governance: only through persuading each other can we develop a shared vision of a just and desirable future. This course tracks the genesis of rhetorical theory in the ancient world, 20th-century struggles against fascist rhetoric, and contemporary extensions of rhetoric in digital media ecologies.

Restriction: Restricted to COMM majors only.

0101	Damien Pfister TuTh 9:30am - 10:45am	Seats (Total: 60) JMZ 0220

ESG1	Janna Soeder TuTh 10:30am - 11:45am *Restricted to COMM majors at Shady Grove.*	Seats (Total: 35) BLD3 2225

COMM302 **Communication Science Theories**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM130, COMM250; and one of STAT100, BMGT230, EDMS451, CCJS200, PSYC200, or SOCY201; and one of COMM107, COMM200, or COMM230; and must have completed or be concurrently enrolled in COMM304. Restriction: Must be in the Communication major. Credit only granted for: COMM302 or COMM402.

This class introduces students to the principles of theory construction and offers a critical overview of how communication theories can be applied to solving problems in diverse social contexts, including interpersonal, intercultural, organizational, health, and/or political issues. The ultimate goal of this course is to put students in an intellectual position to understand theories more logically and critically and use them appropriately and effectively in conducting academic research and addressing social issues.

0101	Kang Namkoong TuTh 2:00pm - 3:15pm	Seats (Total: 60) BPS 1243
ESG1	Soyoung Bae MW 12:30pm - 1:45pm *Restricted to COMM majors at Shady Grove.*	Seats (Total: 40) BLD3 4212

COMM303 **Media Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM130 and COMM250; and one of STAT100, BMGT230, EDMS451, CCJS200, PSYC200, or SOCY201; and one of COMM107, COMM200, or COMM230; and must have completed or be concurrently enrolled in COMM304. Restriction: Must be in the Communication major.

Provides students with an introduction to media theory from multiple perspectives. We will begin by understanding how the history of mediated communication has been connected to ideology and lived experiences. Through readings, discussions, and activities, you will understand how technical, historical, economic social, and political forces have helped shape media content and the media themselves. You should also become familiar with the debate over how much influence the media have over their audiences, and what types of influences are present. The course will introduce issues relevant to consideration of media and historically underrepresented and marginalized groups, as well as individual and societal functions of the media.

Restriction: Restricted to COMM majors only. Credit only granted for COMM303 or COMM398G (Fall 2020). Formerly offered as COMM398G in Fall 2020.

0101	Anita Seate TuTh 3:30pm - 4:45pm	Seats (Total: 60) TYD 0117

COMM304 Communication Research Literacy

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed the Communication gateway requirements (COMM250; and one of STAT100, BMGT230, EDMS451, CCJS200, PSYC200, or SOCY201; and one of COMM107, COMM200 or COMM230). Must have completed or be concurrently enrolled in COMM130. Restriction: Must be in the Communication program.

Explores the different research traditions in the Communication discipline. This "literacy" course will develop students' ability to locate and fully comprehend Communication research and to understand how that research is conducted, reported, analyzed, and critiqued in Communication literature.

0101	Nick Joyce TuTh 2:00pm - 3:15pm	Seats (Total: 120) SKN 0200

COMM305 Qualitative Communication Research Methods

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM130 and COMM304. Restriction: Must be in the Communication major.

Introduces undergraduate students to the methods used in qualitative communication research. Topics covered in class include ethics, field research, reflexivity, data collection, and data analysis. Over the course of the semester, students will develop a research prospectus, engage in field research (interviews and observations), analyze qualitative data, and write/present their research.

0101	Sahar Khamis TuTh 3:30pm - 4:45pm	Seats (Total: 35) KEY 0116
ESG1	Ayodeji Dapherede-Otusanya TuTh 2:00pm - 3:15pm *Restricted to COMM majors at Shady Grove.*	Seats (Total: 40) BLD3 3202

COMM307 Quantitative Methods in Communication

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM130 and COMM304. Restriction: Must be in the Communication major. Credit only granted for: COMM400 or COMM307. Formerly: COMM400.

Designed to introduce students to the basics of quantitative communication research methods. As such, it covers the basic principles of scientific inquiry, the process for generating research questions and hypotheses, the concept of variables, sampling methods, research designs, basics of data analyses, as well as ethics in scientific research. This course prepares students to become informed consumers of quantitative communication research.

0101	Sun Young Lee TuTh 11:00am - 12:15pm	Seats (Total: 35) PLS 1111
0201	Haejung Shin MWF 11:00am - 11:50am	Seats (Total: 35) EGR 1104

COMM324 Communication and Gender

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | , D | General Education: DSHU, DVUP

Explores how communication shapes constructions of gender, sex, sexuality and other identity markers. Topics include issues of oppression, identity, and power and social, political, and economic situations and examines how these issues impact our daily lives.

0101	Alex Thomas TuTh 8:00am - 9:15am	Seats (Total: 35) EGR 1104
0201	Alex Thomas TuTh 9:30am - 10:45am	Seats (Total: 35) EGR 2154
0301	Ari Perez Montes TuTh 3:30pm - 4:45pm	Seats (Total: 35) SQH 1121
0401	Ari Perez Montes TuTh 5:00pm - 6:15pm	Seats (Total: 35) SQH 1121
ESG1	Jaclyn Bruner TuTh 12:30pm - 1:45pm *Restricted to COMM majors at Shady Grove.*	Seats (Total: 40) BLD3 4212

COMM330 Argumentation and Public Policy

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Contemporary theories of argumentation with special emphasis on methods of formulating and critiquing public policy argument.

0101	Carolyn Robbins MWF 11:00am - 11:50am	Seats (Total: 35) PLS 1113

COMM331 **News Writing and Reporting for Public Relations**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM130 and COMM201. Restriction: Must be in Communication program; and (sophomore standing; or junior standing). Credit only granted for: JOUR201, COMM231, or COMM331. Formerly: COMM231.

Writing and researching news and information media for public relations; laboratory in news-gathering tools and writing techniques for public relations.

0101	Vijaya Bohlmann MW 8:00am - 9:50am	Seats (Total: 18) EDU 2102
0201	Vijaya Bohlmann MW 10:00am - 11:50am	Seats (Total: 18) TWS 1320
0301	Rebecca Theim MW 12:00pm - 1:50pm	Seats (Total: 18) ARC 1123

COMM332 **News Editing for Public Relations**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in COMM331; or students who have taken courses with comparable content may contact the department. And permission of ARHU-Communication department. Restriction: Must be in Communication program. Credit only granted for: JOUR202, COMM232, or COMM332. Formerly: COMM232.

Copy editing, graphic principles and processes, news and information technologies for public relations.

0101	Vijaya Bohlmann TuTh 12:30pm - 1:45pm	Seats (Total: 18) JMZ 3122

COMM351 **Public Relations Techniques**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM331. Restriction: Must be in Communication program.

The techniques of public relations, including news releases, publications and printed materials, audio-visual techniques, speeches and special events. Application of these techniques in laboratory and field projects.

0101	Dionne Clemons MW 5:00pm - 6:15pm	Seats (Total: 18) JMZ 0118
0201	Dionne Clemons MW 3:30pm - 4:45pm	Seats (Total: 18) JMZ 0118

COMM353 **New Media Writing for Public Relations**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in COMM351. Restriction: Must be in Communication program. Credit only granted for: COMM352 or COMM353. Formerly: COMM352.

Students learn the uses and influence of new media on public relations practice and expand their ability to write using new and traditional media platforms and tools

0201	Jeannette Iannacone TuTh 11:00am - 12:15pm	Seats (Total: 18) ASY 3219
0301	Drew Ashby-King TuTh 9:30am - 10:45am	Seats (Total: 18) ASY 3221
0401	Jeannette Iannacone TuTh 9:30am - 10:45am	Seats (Total: 18) ASY 3219

COMM360 **The Rhetoric of Black America**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D

An historical-critical survey of the rhetoric of Black Americans from the colonial period to the present.

0101	Darrian Carroll TuTh 9:30am - 10:45am	Seats (Total: 35) JMZ 2206

COMM369E **Special Topics in Study Abroad III**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM370 **Mediated Communication**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM250. Restriction: Junior standing or higher.

Analysis and critique of structure, performance, content, effects, and future of mediated communication.

0101	Nick Joyce TuTh 11:00am - 12:15pm	Seats (Total: 35) TYD 2109

COMM371 **Communication and Digital Media**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Communication program.

A basic introduction to communication in the digital age. Through class lectures, assignments and projects, students will learn to effectively use new media for the purpose of strategic message creation and management used in the field of communication. Students will apply the basics of visual layout skills and the principles of visual design to create messages using words and images.

0101	Jaclyn Bruner MW 2:00pm - 3:15pm	Seats (Total: 25) PLS 1129
ESG1	Jaclyn Bruner TuTh 2:00pm - 3:15pm *Restricted to COMM majors at Shady Grove.*	Seats (Total: 25) BLD3 3216

COMM374 **Communicating Visually: Message Production and Digital Media**

Credits: 3

Grading Method: Regular, Pass-Fail

Restriction: Restricted to Communication Majors at the Universities at Shady Grove.

Focus on the interplay between technology, images and sound in the creation of digital content. This is a communication process by which a digital visual message evolves from conception to completion, incorporating the creative, financial and marketing tools. Students will conceive, plan, recruit and supervise digital video projects, developing a familiarity with production management technique and execution.

Credit only granted for COMM374 or COMM498T.

ESG1	Adam Nixon	Seats (Total: 25)
	M 5:00pm - 7:30pm	BLD3 3216
	Restricted to COMM majors at Shady Grove.	

COMM376 **Communication through Advocacy Short Film**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Communication program.

Explores the theory and practice of contemporary communication and advocacy short form video.

ESG1	Adam Nixon	Seats (Total: 25)
	Tu 5:00pm - 7:30pm	BLD3 3216
	Restricted to COMM majors at Shady Grove.	

COMM382 **Essentials of Intercultural Communication**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DVCC

Credit only granted for: COMM382 or COMM482.

Introduction of major theories and concepts of intercultural communication; examination of processes that make up cultural differences; and use of intercultural communication competence skills.

0101	Paula Nadler	Seats (Total: 35)
	MW 3:30pm - 4:45pm	SKN 0104

COMM386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail General Education: DSSP

Prerequisite: Permission of ARHU-Communication department. Restriction: Junior standing or higher; and must be in Communication program.

Supervised internship experience with communication professionals. Relation of academic training to professional experience.

0101	Julie Gowin Contact instructor or department for details.	Seats (Total: 75)
ESG1	Raimonda Nuredini Contact instructor or department for details. *Contact department or instructor for details.*	Seats (Total: 20)

COMM388 **Communication Practicum**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Supervised professional-level practice in communication.

Contact department for information to register for this course.

COMM398 **Selected Topics in Communication**

(Perm req)

Credits: 3 Grading Method: Regular

Topical study of contemporary issues in communication.

Contact department for information to register for this course.

COMM398C **Selected Topics in Communication; Peer Consulting in Oral Communication**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Topical study of contemporary issues in communication.

0101	Raphael Mazzone MW 2:00pm - 3:15pm	Seats (Total: 20) SKN 2117

COMM398D **Selected Topics in Communication; Basic Graphic Design in Communication**

Credits: 3 Grading Method: Regular, Pass-Fail

Topical study of contemporary issues in communication.

Restriction: Restricted to COMM majors only. Students will use computer technology to explore the communication potential of type, white space, information graphics, photographs, and other design elements and apply them to publications relevant to the publications relevant to the public relations industry.

0101	Erich Sommerfeldt TuTh 2:00pm - 3:15pm	Seats (Total: 25) EGR 1104
0201	Erich Sommerfeldt TuTh 12:30pm - 1:45pm	Seats (Total: 25) HBK 1112

COMM398J **Selected Topics in Communication; Communcation and Advanced Digital Imaging**

Credits: 3 Grading Method: Regular, Pass-Fail

Topical study of contemporary issues in communication.

Continuation of COMM398N (although COMM398N is not a prerequisite). Concentration is on advanced visual imaging, with theme-based projects that incorporate advanced features of Photoshop CC, including raw imaging.

ESG1	Ilse Genovese MW 2:00pm - 3:45pm *Restricted to COMM majors at Shady Grove.*	Seats (Total: 25) BLD3 3216

COMM398O **Selected Topics in Communication; Environmental Communication**

Credits: 3 Grading Method: Regular, Pass-Fail

Topical study of contemporary issues in communication.

Environmental Communication explores the theory and practice of talking about the environment. Students will explore how environmental discourses construct and challenge our identities and relationships with other beings as part of multiple complex and interconnected systems. Topics covered include historical and contemporary rhetorics of environmentalism, scholarly thought on discourses of nature and culture, and efforts to relocate the "center" of environmental communication by privileging the perspectives and strategies of marginalized knowledges, practices, and voices.

0101	Jade Olson MWF 9:00am - 9:50am	Seats (Total: 35) PLS 1113

COMM398P **Selected Topics in Communication; Advanced Strategic Message Design**

Credits: 3 Grading Method: Regular, Pass-Fail

Topical study of contemporary issues in communication.

ESG1	Ilse Genovese MW 11:00am - 12:15pm *Restricted to COMM majors at Shady Grove.*	Seats (Total: 25) BLD3 3216

COMM398R **Selected Topics in Communication; Interactive Online Media**

Credits: 3 Grading Method: Regular, Pass-Fail

Topical study of contemporary issues in communication.

Contact department for information to register for this course.

COMM398T **Selected Topics in Communication; Digital Culture and Civic Life**

Credits: 3 Grading Method: Regular, Pass-Fail

Topical study of contemporary issues in communication.

Restriction: Restricted to COMM majors only. This course asks: what does it mean to participate in civic life in a digital age? Students will explore their role as participants in digital culture by critically engaging contemporary case studies alongside learning digital production skills. Topics like social media activism, algorithmic bias, and conspiracy theories will be paired with digital projects like video essays and Twitter bots.

0101	Jaclyn Bruner M 3:30pm - 4:45pm Class time/details on ELMs	Seats (Total: 20) KEY 0126 ONLINE
0201	Jaclyn Bruner M 5:00pm - 6:15pm Class time/details on ELMs	Seats (Total: 20) KEY 0126 ONLINE

COMM399 **Honors Thesis**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

0601	Leah Waks Contact instructor or department for details.	Seats (Total: 10)
4901	Lindsey Anderson Contact instructor or department for details.	Seats (Total: 10)

5101	Damien Pfister Contact instructor or department for details.	Seats (Total: 10)
5301	Kang Namkoong Contact instructor or department for details.	Seats (Total: 10)

COMM419A **Special Topics in Health Communication; Health & Popular Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Covers a variety of topics of health communication. Blends theoretical concepts and practical concerns that impact upon health communication processes. This course covers a specific topic of health communication in greater depth and applies scholarly discoveries to real-world examples.

The purpose of this course is to develop a greater understanding of how health communication issues are portrayed in the media. Using the lens of popular culture, you will critically examine the representation of health issues in different cultural contexts in the media and reflect on how these representations influence behavioral and social change. Restrictions: Restricted to COMM majors only.

0101	Ayodeji Dapherede-Otusanya MW 5:00pm - 6:15pm	Seats (Total: 35) PLS 1119

COMM424 **Communication in Complex Organizations**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Structure and function of communication within organizations: organizational climate and culture, information flow, networks and role relationships.

0101	Lindsey Anderson TuTh 8:00am - 9:15am	Seats (Total: 35) KEY 0102
ESG1	Dionne Clemons MW 9:30am - 10:45am *Restricted to COMM majors at Shady Grove.*	Seats (Total: 40) BLD3 4211

COMM425 **Negotiation and Conflict Management**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Role of communication in shaping negotiation and conflict processes and outcomes.

Restricted to COMM majors.

0101	Lauren Edelstein TuTh 11:00am - 12:15pm	Seats (Total: 45) TWS 1310

COMM426 **Conflict Management**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: COMM425 and COMM250.

Role of communication in managing conflict processes.

Restricted to COMM majors.

0101	Lauren Edelstein TuTh 9:30am - 10:45am	Seats (Total: 45) TWS 1310

COMM427 **Crisis Communication**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Explores theories and research related to communication before, during, and after a crisis. Students examine the fundamentals of organizational communication, crisis management, and strategic and crisis communication planning before examining case studies of a number of real-life crises: organizational crises, natural disasters, accidents, terrorism incidents, health crises, and major crises of credibility.

0101	Haejung Shin MWF 1:00pm - 1:50pm	Seats (Total: 40) SQH 1105

COMM428D **Special Topics Seminar in Dialogues and Deliberation; Principles and Practices of Democratic Talk**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A study in public dialogue and deliberation theory and practice. This course will integrate recorded lectures, readings, videos, Public Dialogues, teamwork, and historical research.

This class considers how dialogue and deliberation contribute to democratic politics. We learn principles of dialogue and deliberation, watch them in real life examples, and then practice facilitation skills by conducting a real world opportunity for democratic talk.

0101	Kristjana Maddux TuTh 9:30am - 10:45am	Seats (Total: 35) ITV 1111

COMM449L **Special Topics in Digital Communication; Media Literacy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Explores the topics that have arisen around computers, digital technologies, the internet, big data, surveillance capitalism, and network infrastructures.

Restriction: Restricted to COMM majors only.

0101	Megan Fromm TuTh 11:00am - 12:15pm	Seats (Total: 35) ARC 1101
ESG1	Ayodeji Dapherede-Otusanya TuTh 3:30pm - 4:45pm *Restricted to COMM majors at Shady Grove.*	Seats (Total: 40) BLD3 3202

COMM449W **Special Topics in Digital Communication; Social Media Writing and Design**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Explores the topics that have arisen around computers, digital technologies, the internet, big data, surveillance capitalism, and network infrastructures.

0101	Megan Fromm TuTh 2:00pm - 3:15pm	Seats (Total: 35) KEY 0103

COMM458E **Seminar in Political Communication; How Citizens Communicate**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The examination of special topics for and theories of political communication.

This seminar focuses on the role of ordinary citizens in political communication. We focus on local practices of democracy, especially in the College Park area, as we think about how citizens develop democratic habits such as public advocacy, trust, stranger sociability, deliberation, reciprocity, empathy, and more. Students observe local community life and interview community members to see these democratic habits in practice.

0101	Kristjana Maddux TuTh 11:00am - 12:15pm	Seats (Total: 35) ITV 1100

COMM461 **Voices of Public Leadership in the Twentieth Century**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Study of the use of speaking in the power struggles of the twentieth century. Focus is on important speakers of the century, their social and policy influence, and the struggle to expand the diversity of voices with power in the public sphere.

0101	Carly Woods MW 2:00pm - 3:15pm	Seats (Total: 35) SQH 1105

COMM462 **Visual Communication**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: COMM462 or COMM498V. Formerly: COMM498V.

The study of visual communication should change the way one sees the world. Students will observe, analyze, and critique visual images. The ascendance of images in our contemporary world will be demonstrated, methods for critically comprehending how images do persuasive work will be identified, and students will develop a vocabulary for critiquing images, and assist students in creating compelling images.

0101	Janna Soeder MW 3:30pm - 4:45pm	Seats (Total: 35) SQH 1101
ESG1	Janna Soeder TuTh 9:00am - 10:15am *Restricted to COMM majors at Shady Grove.*	Seats (Total: 35) BLD3 2225

COMM468T **Seminar in Mediated Communication; Technology and Digital Culture**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The examination of special topics related to the study of mediated communication.

0101	Damien Pfister TuTh 12:30pm - 1:45pm	Seats (Total: 35) PLS 1117

COMM469C **The Discourse of Social Movements; Climate Activism**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Study of key social movements that have influenced American social and political life. In alternate years the Civil Rights Movement and the Rhetoric of Women's Suffrage and Abolitionism. Consideration of how groups excluded from or marginalized in American political life affect social change.

The climate crisis is the most profound threat to human life our species has ever encountered. How have the languages of global warming and climate change influenced our understanding of this existential crisis, and how have climate activists strategically leveraged rhetorical strategies to educate, advocate, and mobilize audiences to meet this challenge? This course explores the rhetorics of climate activism movements, along with the rhetoric of climate skepticism, from the 1960s to the present.

0101	Jade Olson MWF 10:00am - 10:50am	Seats (Total: 35) PLS 1113

COMM475 **Persuasion**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Bases of persuasion, with emphasis on recent experimental developments in persuasion.

Restricted to COMM majors.

0101	Soyoung Bae TuTh 12:30pm - 1:45pm	Seats (Total: 45) ASY 3203
ESG1	Soyoung Bae MW 2:00pm - 3:15pm *Restricted to COMM majors at Shady Grove.*	Seats (Total: 40) BLD3 4212

COMM476 **Language, Communication, and Action**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Communication major.

Communication as symbolic action through the study of communication ethics. Emerging ethical principles and decision-making in public discourse, interpersonal communication, organizational communication, public relations, health communication, and crisis communication.

This course is restricted to COMM majors only.

0101	Brooke Liu TuTh 2:00pm - 3:15pm	Seats (Total: 35) PHY 1204

COMM483 **Senior Seminar in Public Relations**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM351; and 1 course from (COMM305, COMM306, COMM307, or COMM400). Additional information: Students who enrolled after Fall 2020 should not take COMM400 as a prerequisite.

Integration of theory, techniques and research methods into the planning and execution of public relations campaigns for specific organizations. Analysis of research on the case studies of public relations.

Restricted to majors in Communitcation

0101	Susan Simon TuTh 12:30pm - 1:45pm	Seats (Total: 20) PLS 1115
0201	Steven Drake TuTh 3:30pm - 4:45pm	Seats (Total: 20) PLS 1117
0301	Susan Simon TuTh 2:00pm - 3:15pm	Seats (Total: 20) PLS 1164
0401	Steven Drake TuTh 5:00pm - 6:15pm	Seats (Total: 20) PLS 1117
0501	Susan Simon TuTh 3:30pm - 4:45pm	Seats (Total: 20) HBK 0123

COMM488 **Communication Portfolio Project**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Preparation of the professional communication portfolio.

Contact department for information to register for this course.

COMM488I **Communication Portfolio Project; Strategic Interviewing**

Credits: 1

Grading Method: Regular, Pass-Fail

Preparation of the professional communication portfolio.

This course introduces students to advanced techniques in interviewing for job opportunities and career progression. This online course focuses on the dynamics of the interview process, the communication theories and best practices behind influence and persuasion, and the communication aptitudes and skills that distinguish top candidates.

0101	Victoria McDermott	Seats (Total: 50)
	Class time/details on ELMs	ONLINE

COMM489 **Topical Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Individualized research projects conducted with a faculty sponsor.

Contact department for information to register for this course.

COMM498D **Seminar; Media, Culture, and Society in Israel**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Present-day communication research.

This is a Global Classrooms course, developed in partnership with the Office of International Affairs (OIA) to provide virtual opportunities for global engagement. Global Classrooms can range from embedded experiences to immersive, project-based collaboration. Learn more about Global Classrooms: go.umd.edu/gc-umd. This will be taught asynchronous with four synchronous sessions to be held in conjunction with the Ashkelon Academic University in Israel on the following dates: March 29, April 5, April 26, May 10. All session at 11:00am-12:15pm. Cross-listed with ISRL448B. Credit only granted for ISRL448B or COMM498D. This course acquaints students with the historical development of media in Israel, from its former monopolistic structure towards its current highly competitive, fragmented system. We will discuss issues unique to Israel's media environment, including the media's role in nation-building, collective memory, social integration, public diplomacy, and intercultural communication.

0102	Elie Friedman	Seats (Total: 35)
	Class time/details on ELMs	ONLINE

COMM498G **Seminar; Event Planning and Communication**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Present-day communication research.

Restricted to COMM majors (1506A) only. A hands-on course where client work will develop the professional-level skills required to plan a creative event on time and under budget and build brand awareness of the client. This course requires attendance at several meetings, conference calls, lectures and activities outside of the scheduled class time.

ESG1	Dionne Clemons	Seats (Total: 25)
	MW 11:00am - 12:15pm	BLD3 2226
	Restricted to COMM majors at Shady Grove.	

COMM498L **Seminar; Writing for Film and Digital Media**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Present-day communication research.

ESG1	Adam Nixon	Seats (Total: 25)
	W 5:00pm - 7:30pm	BLD3 3216
	Restricted to COMM majors at Shady Grove.	

COMM498N **Seminar; Creating the Narrative: Genre-Filmmaking and Dramatic Structure**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Present-day communication research.

First time filmmakers often use genre traditions to break into the profession. In this class we will explore the history, motifs, and technique of the horror, suspense and romantic comedy genres.

ESG1	Adam Nixon	Seats (Total: 25)
	Th 5:00pm - 7:30pm	BLD3 3216
	Restricted to COMM majors at Shady Grove.	

COMM498R **Seminar; Risk Communiation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Present-day communication research.

Restriction: Restricted to COMM majors only.

0101	Jiyoun Kim	Seats (Total: 35)
	MW 2:00pm - 3:15pm	KEY 1117

COMM498Y **Seminar; Freedom of Speech and the First Amendment**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Present-day communication research.

This course examines the U.S. Supreme Court's rulings on freedom of speech cases grounded in the First Amendment.

0101	Trevor Parry-Giles	Seats (Total: 35)
	TuTh 12:30pm - 1:45pm	TYD 1118

COMM619 **Consecutive Interpretation**

Credits: 2-6 Grading Method: Regular, Audit

Builds upon the systematic, reflective approach to interpreting in real-world settings introduced in Fundamentals of Interpreting. Consecutive interpreting skills are consolidated through individual and group practice, and any remaining challenges related to consecutive interpreting sub-skills are identified and addressed. Stresses effective analysis, note-taking, and use of voice during exercises in sight translation, dialogue, and formal consecutive interpreting.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

PG01	Yana Carver, Shawn Parry-Giles	Seats (Total: 16)
	Contact instructor or department for details.	

COMM619A **Consecutive Interpretation; Methodology**

Credits: 1 Grading Method: Regular, Audit

Builds upon the systematic, reflective approach to interpreting in real-world settings introduced in Fundamentals of Interpreting. Consecutive interpreting skills are consolidated through individual and group practice, and any remaining challenges related to consecutive interpreting sub-skills are identified and addressed. Stresses effective analysis, note-taking, and use of voice during exercises in sight translation, dialogue, and formal consecutive interpreting.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

XG01	Karima Azzouz Sa 10:30am - 12:30pm *Biweekly. Start Date: 01-29.*	Seats (Total: 16) SKN 3117

COMM619B **Consecutive Interpretation; Arabic into English/English into Arabic**

Credits: 1

Grading Method: Regular, Audit

Builds upon the systematic, reflective approach to interpreting in real-world settings introduced in Fundamentals of Interpreting. Consecutive interpreting skills are consolidated through individual and group practice, and any remaining challenges related to consecutive interpreting sub-skills are identified and addressed. Stresses effective analysis, note-taking, and use of voice during exercises in sight translation, dialogue, and formal consecutive interpreting.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

XGA1	Ihab Ali Tu 6:00pm - 7:15pm *Arabic into English.*	Seats (Total: 16) SKN 3117
XGE1	Ihab Ali Tu 7:15pm - 8:15pm *English into Arabic.*	Seats (Total: 16) SKN 3117

COMM619C **Consecutive Interpretation; Sight Translation: Arabic into English/English into Arabic**

Credits: 1

Grading Method: Regular, Audit

Builds upon the systematic, reflective approach to interpreting in real-world settings introduced in Fundamentals of Interpreting. Consecutive interpreting skills are consolidated through individual and group practice, and any remaining challenges related to consecutive interpreting sub-skills are identified and addressed. Stresses effective analysis, note-taking, and use of voice during exercises in sight translation, dialogue, and formal consecutive interpreting.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

XGA1	John Samaha Jr Class time/details on ELMs *Arabic into English.*	Seats (Total: 16) ONLINE

XGE1	Ihab Ali F 5:00pm - 5:30pm Class time/details on ELMs *English into Arabic.*	Seats (Total: 16) SKN 3117 ONLINE	Discussion

COMM619F **Consecutive Interpretation; French into English/English into French**

Credits: 1 Grading Method: Regular, Audit

Builds upon the systematic, reflective approach to interpreting in real-world settings introduced in Fundamentals of Interpreting. Consecutive interpreting skills are consolidated through individual and group practice, and any remaining challenges related to consecutive interpreting sub-skills are identified and addressed. Stresses effective analysis, note-taking, and use of voice during exercises in sight translation, dialogue, and formal consecutive interpreting.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

XGE1	Pascale Kraus W 4:30pm - 5:30pm *English into French.*	Seats (Total: 16) SKN 3118
XGF1	Rosalinda Meza-Steel Sa 10:30am - 12:30pm *French into English. Biweekly: Start Date: 02-05.*	Seats (Total: 16) ONLINE

COMM619G **Consecutive Interpretation; Sight Translation: French into English/English into French**

Credits: 1 Grading Method: Regular, Audit

Builds upon the systematic, reflective approach to interpreting in real-world settings introduced in Fundamentals of Interpreting. Consecutive interpreting skills are consolidated through individual and group practice, and any remaining challenges related to consecutive interpreting sub-skills are identified and addressed. Stresses effective analysis, note-taking, and use of voice during exercises in sight translation, dialogue, and formal consecutive interpreting.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

XGE1	Brigitte Andreassier Class time/details on ELMs *English into French.*	Seats (Total: 16) ONLINE

XGF1	Rosalinda Meza-Steel	Seats (Total: 16)
	Sa 1:00pm - 2:15pm	ONLINE
	French into English. Biweekly: Start Date: 02-05.	

COMM629 **Introduction to Simultaneous Interpretation**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Builds upon the overview of the simultaneous mode in Fundamentals of Interpreting by reviewing the relationship between consecutive and simultaneous skills and introducing work in the booth. Challenges of simultaneous interpreting, including split attention, ear-voice span, and voice and microphone technique are addressed. Participants become familiar with the booth and exercises required to build simultaneous skills. Role and use of portable equipment in professional settings are discussed. Recommended as preparation for the M.A. entrance examination.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

PG01	Shawn Parry-Giles, Yana Carver	Seats (Total: 16)
	Contact instructor or department for details.	

COMM629A **Introduction to Simultaneous Interpretation; Arabic into English/English into Arabic**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Builds upon the overview of the simultaneous mode in Fundamentals of Interpreting by reviewing the relationship between consecutive and simultaneous skills and introducing work in the booth. Challenges of simultaneous interpreting, including split attention, ear-voice span, and voice and microphone technique are addressed. Participants become familiar with the booth and exercises required to build simultaneous skills. Role and use of portable equipment in professional settings are discussed. Recommended as preparation for the M.A. entrance examination.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

XGA1	Ihab Ali	Seats (Total: 16)
	W 6:30pm - 7:15pm Class time/details on ELMs	SKN 3118 ONLINE
	Arabic into English.	

XGE1	Ihab Ali W 7:15pm - 7:45pm Class time/details on ELMs *English into Arabic.*	Seats (Total: 16) SKN 3118 ONLINE

COMM629F **Introduction to Simultaneous Interpretation; French into English/English into French**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Builds upon the overview of the simultaneous mode in Fundamentals of Interpreting by reviewing the relationship between consecutive and simultaneous skills and introducing work in the booth. Challenges of simultaneous interpreting, including split attention, ear-voice span, and voice and microphone technique are addressed. Participants become familiar with the booth and exercises required to build simultaneous skills. Role and use of portable equipment in professional settings are discussed. Recommended as preparation for the M.A. entrance examination.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

XGE1	Pascale Kraus W 5:30pm - 6:15pm Contact instructor or department for details. *English into French.*	Seats (Total: 16) SKN 3118
XGF1	Rosalinda Meza-Steel Sa 9:00am - 10:15am *French into English. Biweekly: Start Date: 02-05.*	Seats (Total: 16) ONLINE

COMM631 **Seminar in Public Relations Publics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: COMM631 or JOUR631. Formerly: JOUR631.

Analysis of public relations programs aimed at organizational publics. Media, issue-related, community, employee, governmental, consumer, financial, and student/educator publics. Theories of the nature of publics, communication behavior of publics, and effects of public relations programs aimed at different publics.

0101	Erich Sommerfeldt Th 3:30pm - 6:30pm	Seats (Total: 15) SKN 2127

COMM639 **Fundamentals of Translation**

Credits: 2-6

Grading Method: Regular, Audit, Sat-Fail

Develops a systematic, reflective approach to translation involving both the written and spoken word. Provides an overview of domains of translation, associated text categories and translation tasks. Develops strategies to identify, analyze and resolve translation challenges in specific, authentic,real-world contexts. Working with a series of current texts, explores general translation concepts and language-specific strategies. Includes sight translation exercises and introduction to translation resources and computer tools used in the translators workplace.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

PG01	Yana Carver, Shawn Parry-Giles	Seats (Total: 16)
	Contact instructor or department for details.	

COMM639A **Fundamentals of Translation; Methodology**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Develops a systematic, reflective approach to translation involving both the written and spoken word. Provides an overview of domains of translation, associated text categories and translation tasks. Develops strategies to identify, analyze and resolve translation challenges in specific, authentic,real-world contexts. Working with a series of current texts, explores general translation concepts and language-specific strategies. Includes sight translation exercises and introduction to translation resources and computer tools used in the translators workplace.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

XG01	Eva Vilarrubi	Seats (Total: 16)
	W 5:30pm - 7:30pm	SKN 1112
	Biweekly: Start Date: 01-26.	

COMM639M **Fundamentals of Translation; Translation: Spanish into English/English into Spanish**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Develops a systematic, reflective approach to translation involving both the written and spoken word. Provides an overview of domains of translation, associated text categories and translation tasks. Develops strategies to identify, analyze and resolve translation challenges in specific, authentic,real-world contexts. Working with a series of current texts, explores general translation concepts and language-specific strategies. Includes sight translation exercises and introduction to translation resources and computer tools used in the translators workplace.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

XGE1	Eva Vilarrubi W 4:00pm - 5:15pm *English into Spanish.*	Seats (Total: 16) SKN 1112
XGS1	Joseph Mazza Tu 7:00pm - 8:50pm *Spanish into English. Biweekly: Start Date: 01-25.*	Seats (Total: 16) PLS 1176

COMM639N **Fundamentals of Translation; Sight Translation: Spanish into English/English into Spanish**

Credits: 1

Grading Method: Regular,
Audit, Sat-Fail

Develops a systematic, reflective approach to translation involving both the written and spoken word. Provides an overview of domains of translation, associated text categories and translation tasks. Develops strategies to identify, analyze and resolve translation challenges in specific, authentic,real-world contexts. Working with a series of current texts, explores general translation concepts and language-specific strategies. Includes sight translation exercises and introduction to translation resources and computer tools used in the translators workplace.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

XGE1	Eva Vilarrubi W 3:15pm - 3:45pm Class time/details on ELMs *English into Spanish.*	Seats (Total: 16) SKN 1112 ONLINE
XGS1	Rosalinda Meza-Steel Sa 2:30pm - 3:30pm *Spanish into English. Biweekly: Start Date: 02-05.*	Seats (Total: 16) ONLINE

COMM649 **Translation for Specific Domains**

Credits: 2-6

Grading Method: Regular,
Audit

Builds upon the systematic, reflective approach introduced in Fundamentals of Translation by addressing the development of translation skills required for specialization in specific domains. In written and sight translation exercises include researching specialized subject material, developing and maintaining terminology, and consulting experts in the field. Includes authentic, real-world translation projects in translation teams. Overview of computer-assisted translation tools and continued work on sight translation enable higher levels of productivity under time constraints.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

PG01	Yana Carver, Shawn Parry-Giles	Seats (Total: 16)
	Contact instructor or department for details.	

COMM649A **Translation for Specific Domains; Methodology**

Credits: 1 Grading Method: Regular, Audit

Builds upon the systematic, reflective approach introduced in Fundamentals of Translation by addressing the development of translation skills required for specialization in specific domains. In written and sight translation exercises include researching specialized subject material, developing and maintaining terminology, and consulting experts in the field. Includes authentic, real-world translation projects in translation teams. Overview of computer-assisted translation tools and continued work on sight translation enable higher levels of productivity under time constraints.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

XG01	Eva Vilarrubi	Seats (Total: 16)
	W 5:30pm - 7:30pm	SKN 1112
	Biweekly. Start date: 01-26.	

COMM649B **Translation for Specific Domains; Arabic into English/English into Arabic**

Credits: 1 Grading Method: Regular, Audit

Builds upon the systematic, reflective approach introduced in Fundamentals of Translation by addressing the development of translation skills required for specialization in specific domains. In written and sight translation exercises include researching specialized subject material, developing and maintaining terminology, and consulting experts in the field. Includes authentic, real-world translation projects in translation teams. Overview of computer-assisted translation tools and continued work on sight translation enable higher levels of productivity under time constraints.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

XGA1	John Samaha Jr Class time/details on ELMs *Arabic into English.*	Seats (Total: 16) ONLINE
XGE1	Ihab Ali F 6:15pm - 7:15pm *English into Arabic.*	Seats (Total: 16) SKN 3117

COMM649C **Translation for Specific Domains; Sight Translation: Arabic into English/English into Arabic**

Credits: 1 Grading Method: Regular, Audit

Builds upon the systematic, reflective approach introduced in Fundamentals of Translation by addressing the development of translation skills required for specialization in specific domains. In written and sight translation exercises include researching specialized subject material, developing and maintaining terminology, and consulting experts in the field. Includes authentic, real-world translation projects in translation teams. Overview of computer-assisted translation tools and continued work on sight translation enable higher levels of productivity under time constraints.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

XGA1	John Samaha Jr Class time/details on ELMs *Arabic into English.*	Seats (Total: 16) ONLINE
XGE1	Ihab Ali F 5:00pm - 5:30pm Class time/details on ELMs *English into Arabic.*	Seats (Total: 16) SKN 3117 ONLINE

COMM649F **Translation for Specific Domains; French into English/English into French**

Credits: 1 Grading Method: Regular, Audit

Builds upon the systematic, reflective approach introduced in Fundamentals of Translation by addressing the development of translation skills required for specialization in specific domains. In written and sight translation exercises include researching specialized subject material, developing and maintaining terminology, and consulting experts in the field. Includes authentic, real-world translation projects in translation teams. Overview of computer-assisted translation tools and continued work on sight translation enable higher levels of productivity under time constraints.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

XGE1	Brigitte Andreassier Class time/details on ELMs *English into French.*	Seats (Total: 16) ONLINE
XGF1	Pascale Kraus W 3:30pm - 4:30pm *French into English.*	Seats (Total: 16) SKN 3118

COMM649G **Translation for Specific Domains; Sight Translation; French into English/English into French**

Credits: 1 Grading Method: Regular, Audit

Builds upon the systematic, reflective approach introduced in Fundamentals of Translation by addressing the development of translation skills required for specialization in specific domains. In written and sight translation exercises include researching specialized subject material, developing and maintaining terminology, and consulting experts in the field. Includes authentic, real-world translation projects in translation teams. Overview of computer-assisted translation tools and continued work on sight translation enable higher levels of productivity under time constraints.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

XGE1	Brigitte Andreassier Class time/details on ELMs *English into French.*	Seats (Total: 16) ONLINE
XGF1	Rosalinda Meza-Steel Sa 1:00pm - 2:15pm *French into English. Biweekly: Start Date: 02-05.*	Seats (Total: 16) ONLINE

COMM649M **Translation for Specific Domains; Spanish into English/English into Spanish**

Credits: 1 Grading Method: Regular, Audit

Builds upon the systematic, reflective approach introduced in Fundamentals of Translation by addressing the development of translation skills required for specialization in specific domains. In written and sight translation exercises include researching specialized subject material, developing and maintaining terminology, and consulting experts in the field. Includes authentic, real-world translation projects in translation teams. Overview of computer-assisted translation tools and continued work on sight translation enable higher levels of productivity under time constraints.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

XGE1	Eva Vilarrubi W 4:00pm - 5:15pm *English into Spanish.*	Seats (Total: 16) SKN 1112
XGS1	Joseph Mazza Tu 7:00pm - 8:50pm *Spanish into English. Biweekly. Start date: 01-25.*	Seats (Total: 16) PLS 1176

COMM649N **Translation for Specific Domains; Sight Translation: Spanish into English/English into Spanish**

Credits: 1 Grading Method: Regular, Audit

Builds upon the systematic, reflective approach introduced in Fundamentals of Translation by addressing the development of translation skills required for specialization in specific domains. In written and sight translation exercises include researching specialized subject material, developing and maintaining terminology, and consulting experts in the field. Includes authentic, real-world translation projects in translation teams. Overview of computer-assisted translation tools and continued work on sight translation enable higher levels of productivity under time constraints.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

XGE1	Eva Vilarrubi W 3:15pm - 3:45pm Class time/details on ELMs *English into Spanish.*	Seats (Total: 16) SKN 1112 ONLINE
XGS1	Rosalinda Meza-Steel Sa 2:30pm - 3:30pm *Spanish into English. Biweekly: Start Date: 02-05.*	Seats (Total: 16) ONLINE

COMM683 **Intercultural Communication Theory**

Credits: 3 | Grading Method: Regular, Audit, Sat-Fail

An in-depth coverage of the essential theories of intercultural communication is provided.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

Click here for more course information.

PG01	Raphael Mazzone M 5:00pm - 8:15pm	Seats (Total: 16) SKN 3117

COMM688 **Communication Field Experience**

(Perm req)

Credits: 1-6 | Grading Method: Regular, Audit

Applications of communication principles and research in professional communication settings.

Contact department for information to register for this course.

COMM698 **Special Problems in Communication**

(Perm req)

Credits: 1-3 | Grading Method: Regular, Audit

Contact department for information to register for this course.

COMM701 **Quantitative Methods in Communication Research**

Credits: 3 | Grading Method: Regular, Audit

Prerequisite: COMM700. Formerly: SPCH701.

Logic and methods of quantitative data collection and statistical analysis as applied to communication studies. Research strategies for communications: experimentation, survey research, field research, and content analysis.

0101	Jiyoun Kim W 3:30pm - 6:30pm	Seats (Total: 15) SKN 2127

COMM730 **Seminar in Health Communication**

Credits: 3 | Grading Method: Regular, Audit, Sat-Fail

Formerly: SPCH730.

Communication processes in health care and promotion.

0101	Xiaoli Nan	Seats (Total: 15)
	Tu 10:00am - 1:00pm	SKN 3117

COMM738C **Seminar in Mediated Communication; Introduction to Cultural Studies: Mediated Identities in Global Context**

Credits: 3 Grading Method: Regular, Audit

The examination of special topics related to the study of mediated communication.

Cross-listed with WMST698C. Credit only granted for COMM738C or WMST698C.

0101	Sahar Khamis	Seats (Total: 15)
	Tu 6:30pm - 9:30pm	SKN 2127

COMM738D **Seminar in Mediated Communication; Intro to Digital Studies in the Arts and Humanities**

Credits: 3 Grading Method: Regular, Audit

The examination of special topics related to the study of mediated communication.

Cross-listing with MITH619. Credit only granted for MITH610 or COMM738D. An introduction to digital studies in the arts and humanities, broadly conceived as the critical, creative, and practical engagement with digital media, methods, tools, and experiences, as well as the theoretical and conceptual bases for understanding them.

0101	Catherine Steele	Seats (Total: 15)
	M 3:30pm - 6:30pm	SKN 2127

COMM760 **Seminar in Political Communication**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Formerly: SPCH760.

A blend of theory and practice to integrate rhetorical-critical theory and empirical methods with politics. Practitioners in political communication will be drawn in as resource persons. Students will map the communication strategy for candidates and analyze actual campaign strategies.

0101	Trevor Parry-Giles	Seats (Total: 15)
	W 3:30pm - 6:30pm	SKN 3117

COMM762 **The Rhetoric of Political Institutions**

Credits: 3 Grading Method: Regular, Sat-Fail

The role of discourse in major political institutions is examined. The specific institutional focus may change from instructor to instructor. Examples include Congress, the courts, or the state legislatures.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

Click here for more course information.

PG01	David Sawyer	Seats (Total: 16)
	Th 5:30pm - 8:30pm	SKN 3118

COMM798 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

An individual course designed for intensive study or research of problems in communication.

Contact department for information to register for this course.

COMM798A **Independent Study; Independent Study; Public Speaking**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

An individual course designed for intensive study or research of problems in communication.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

PG01	Mollie Kaufer	Seats (Total: 16)
	Class time/details on ELMs	ONLINE
	By appointment	

COMM798B **Independent Study; Text Analysis and Intensive Writing**

Credits: 1-2 Grading Method: Regular, Audit, Sat-Fail

An individual course designed for intensive study or research of problems in communication.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

PG02	Eva Vilarrubi Th 4:00pm - 5:15pm *Spanish.*	Seats (Total: 16) SKN 3117
PG03	Ahmed Hanafy Th 3:00pm - 5:15pm *Arabic.*	Seats (Total: 16) KEY 0117

COMM798F **Independent Study; English Fluency Enhancement**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

An individual course designed for intensive study or research of problems in communication.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

PG01	Mollie Kaufer Contact instructor or department for details.	Seats (Total: 16)

COMM799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

COMM888 **Doctoral Practicum in Communication**

(Perm req)

Credits: 3-9 Grading Method: Regular, Audit

Analysis of professional activity through personal observation. Evaluation of the purpose, process, effectiveness, and efficiency of professional activity. Recommendations for training and further research.

Contact department for information to register for this course.

COMM889 **Doctoral Tutorial in Communication**

(Perm req)

Credits: 3-9 Grading Method: Regular, Audit

Individual research in communication.

Contact department for information to register for this course.

COMM898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

COMM899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CPBE College Park Scholars-Business, Society, and Economy Spring 2022

CPBE230 **College Park Scholars: Business, Society & the Economy Internship Practicum**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Prerequisite: CPBE100. Restriction: Students must be matriculated into the College Park Scholars Business, Society & the Economy (CPBE) program.

Supervised internship project in an area related to business, society and the economy.

Alternating face-to-face/online class meetings, see the instructor for details.

0101	Claudia Donnelly	Seats (Total: 30)
	W 6:00pm - 7:00pm	CCC 1205

CPBE240 **College Park Scholars: Business, Society & the Economy Service-Learning Practicum**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Prerequisite: CPBE100. Restriction: Students must be matriculated into the College Park Scholars Business, Society & the Economy (CPBE) program.

Supervised Service-Learning project in an area related to business, society and the economy.

Alternating face-to-face/online class meetings, see the instructor for details.

0101	Claudia Donnelly	Seats (Total: 30)
	W 6:00pm - 7:00pm	CCC 1205

CPBE250 **College Park Scholars: Business, Society & the Economy Research Practicum**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Prerequisite: CPBE100. Restriction: Students must be matriculated into the College Park Scholars Business, Society & the Economy (CPBE) program.

Supervised research project in an area related to business, society and the economy.

Alternating face-to-face/online class meetings, see the instructor for details.

0101	Claudia Donnelly	Seats (Total: 6)
	W 6:00pm - 7:00pm	CCC 1205

CPET College Park Scholars-Environment, Technology & Economy Spring 2022

CPET101 **College Park Scholars: Environment, Technology & Economy First-Year Colloquium II**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP, DVUP

Prerequisite: CPET100. Restriction: Students must be enrolled in the College Park Scholars Environment, Technology & Economy (CPET) program.

Introductory colloquium II: Continued examination of issues related to the convergence of the environment, technology and the economy. Group projects in sustainable development.

0101	Tim Knight	Seats (Total: 78)
	TuTh 4:00pm - 5:30pm	ESJ 1215

CPET230 **College Park Scholars: Environment, Technology & Economy Internship Practicum**

Credits: 1-3 | Grading Method: Regular, Pass-Fail

Prerequisite: CPET200. Restriction: Students must be matriculated into the College Park Scholars Environment, Technology & the Economy (CPET) program.

Supervised internship project in an area related to the environment, technology and the economy.

0101	Tim Knight	Seats (Total: 50)
	Tu 4:00pm - 5:10pm	CCC 1100

CPET240 **College Park Scholars: Environment, Technology & Economy Service-Learning Practicum**

Credits: 1-3 | Grading Method: Regular, Pass-Fail

Restriction: Students must be matriculated into the College Park Scholars Environment, Technology & the Economy (CPET), Science, Technology & Society (CPSS), Arts (CPSA) and Business, Society, & Economy (CPBE) programs.

Supervised Service-Learning project in an area related to the environment, technology and the economy.

Restricted to students in the Environment, Technology, and Economy program (CPET).

0101	Tim Knight	Seats (Total: 24)
	Tu 4:00pm - 5:10pm	CCC 1100

CPET250 **College Park Scholars: Environment, Technology & Economy Research Practicum**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Prerequisite: CPET200. Restriction: Students must be matriculated into the College Park Scholars Environment, Technology & the Economy (CPET) program.

Supervised research project in an area related to the environment, technology and the economy.

0101	Tim Knight	Seats (Total: 14)
	Tu 4:00pm - 5:10pm	CCC 1100

CPGH College Park Scholars-Global Public Health Spring 2022

CPGH101 **College Park Scholars: Global Public Health First-Year Colloquium II**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: CPGH100. Restriction: Students must be enrolled in the College Park Scholars Global Public Health (CPGH) program.

Using case studies, students will examine necessary components to design successful public health interventions.

0101	Reva Datar, Becky Shasha	Seats (Total: 90)
	W 2:00pm - 3:15pm	CCC 1100

CPGH230 **College Park Scholars: Global Public Health - Internship Practicum**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Prerequisite: CPGH200. Restriction: Students must be enrolled in the College Park Scholars Global Public Health (CPGH) program.

Supervised internship project in an interest area related to global public health.

Alternating face-to-face/online class meetings, see the instructor for details.

0101	Becky Shasha, Haley Clark	Seats (Total: 30)
	M 3:00pm - 3:50pm	CCC 1100

CPGH240 **College Park Scholars: Global Public Health Service-Learning Practicum**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Prerequisite: CPGH200. Restriction: Students must be enrolled in the College Park Scholars Global Public Health (CPGH) program.

Supervised Service-Learning project in an interest area related to global public health.

Alternating face-to-face/online class meetings, see the instructor for details.

0101	Becky Shasha, Haley Clark	Seats (Total: 30)
	M 3:00pm - 3:50pm	CCC 1100

CPGH250 **College Park Scholars: Global Public Health Research Practicum**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Prerequisite: CPGH200. Restriction: Students must be enrolled in the College Park Scholars Global Public Health (CPGH) program.

Supervised research project in an interest area related to global public health.

Alternating face-to-face/online class meetings, see the instructor for details.

0101	Haley Clark, Becky Shasha	Seats (Total: 25)
	M 3:00pm - 3:50pm	CCC 1100

CPJT College Park Scholars-Justice and Legal Thought Spring 2022

CPJT101 **Colloquium in Justice and Legal Thought**

Credits: 1 Grading Method: Regular, Pass-Fail

An exploration of contemporary issues related to justice and legal thought.

0101	Justine DeCamillis	Seats (Total: 75)
	M 2:00pm - 3:15pm	CCC 1205

CPJT105 **Justice and the Law Service-Learning Lab**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: MLAW100. Restriction: Students must be enrolled in the College Park Scholars Justice & Legal Thought (CPJT) program. Cross-listed with: MLAW101. Credit only granted for: MLAW101 or CCJT105.

The MLAW/Justice and the Law Service-Learning Lab is designed to build skills in using law to create change through community service. Students will engage in 40 hours of service during the semester, and will engage in critical reflection sessions in person or virtually. All service is intended to advance the cause of justice using law and hence put JLT principles to practice. Service will include but not be limited to immigrant assistance and refugee resettlement.

0101	Justine DeCamillis, Robert Koulish	Seats (Total: 10)
	Class time/details on ELMs	ONLINE

CPJT230 **Capstone for Justice and Legal Thought: Internship**

Credits: 2-3 Grading Method: Regular, Pass-Fail General Education: DSSP

The capstone of the four-semester College Park Scholars Justice and Legal thought citation program is an exploration of justice and law within a rigorous academic and experiential framework. Students must develop and perform practicum internships in professional law related settings. In all settings, students must interact directly with legal professionals in law related fields and through law-related institutions under the supervision of legal professionals and program staff. In conjunction with the experiential component, students will synthesize their experience within the learning outcomes of the Justice and Legal Thought Program through an innovative final project culminating in a poster presentation.

0101	Justine DeCamillis	Seats (Total: 25)
	Contact instructor or department for details.	

CPJT240 **Capstone for Justice and Legal Thought: Service-Learning**

Credits: 2 Grading Method: Regular, Pass-Fail General Education: DSSP

The capstone of the four-semester College Park Scholars Justice and Legal Thought citation program is an exploration of justice and law within a rigorous academic and experiential framework. Students must develop and perform practicum volunteer experiences in professional law related settings. In all settings, students must interact directly with legal professionals in law related fields and through law-related institutions under the supervision of legal professionals and program staff. In conjunctions with the experiential component, students will synthesize their experience within the learning outcomes of the Justice and Legal Thought program through an innovative final project culminating in a poster presentation.

0101	Justine DeCamillis	Seats (Total: 25)
	Contact instructor or department for details.	

CPJT250 **Capstone for Justice and Legal Thought: Research**

Credits: 2 Grading Method: Regular, Pass-Fail General Education: DSSP

The capstone of the four-semester College Park Scholars Justice and Legal Thought citation program is an exploration of justice and law within a rigorous academic and experiential framework. Students must develop and perform applied research in a law related setting. Students must interact directly with legal professionals under the supervision of program staff. Students will synthesize their experience within the learning outcomes of the Justice and Legal Thought Program through an innovative final research project culminating in a poster presentation.

0101	Victoria Worley, Justine DeCamillis	Seats (Total: 35)
	Contact instructor or department for details.	

CPMS College Park Scholars-Media, Self and Society Spring 2022

CPMS101 **College Park Scholars: Media, Self & Society First-Year Colloquium II**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: CPMS100. Restriction: Students must be enrolled in the College Park Scholars Media, Self & Society (CPMS) program.

Examination of the media's coverage of topical issues.

0101	Alison Burns	Seats (Total: 95)
	Th 12:30pm - 1:45pm	ESJ 1202

CPMS230 **College Park Scholars: Media, Self & Society - Internship Practicum**

Credits: 1-3

Grading Method: Regular, Pass-Fail

Prerequisite: CPMS101. Restriction: Students must be enrolled in the College Park Scholars Media, Self & Society (CPMS) program.

Supervised internship project in an area related to media, self and society.

0101	Alison Burns, Kelly Brower	Seats (Total: 30)
	Contact instructor or department for details.	

CPMS240 **College Park Scholars: Media, Self & Society - Service-Learning Practicum**

Credits: 1-3

Grading Method: Regular, Pass-Fail

Prerequisite: CPMS101. Restriction: Students must be enrolled in the College Park Scholars Media, Self & Society (CPMS) program.

Supervised Service-Learning project in an area related to media, self and society.

0101	Alison Burns, Kelly Brower	Seats (Total: 10)
	Contact instructor or department for details.	

CPPL College Park Scholars-Public Leadership Spring 2022

CPPL101 **College Park Scholars: Public Leadership First-Year Colloquium II**

Credits: 1

Grading Method: Regular, Pass-Fail

Prerequisite: CPPL100. Restriction: Students must be enrolled in the College Park Scholars Public Leadership (CPPL) program.

Continued examination of issues related to public leadership. Development of team, community-based learning project proposals.

0101	Susannah Washburn	Seats (Total: 80)
	W 3:30pm - 4:45pm	CCC 1100

CPSA College Park Scholars-Arts Spring 2022

CPSA101 **College Park Scholars: Arts First-Year Colloquium II**

Credits: 1

Grading Method: Regular, Pass-Fail

Prerequisite: CPSA100. Restriction: Students must be matriculated into the College Park Scholars Arts (CPSA) program.

Introductory colloquium II: Arts workshops and Arts Festival.

0101	Heather-Erin Bremenstuhl, Harold Burgess	Seats (Total: 75)
	M 6:00pm - 7:30pm	CCC 1100

CPSA149 **College Park Scholars: Arts Service-Learning Outreach**

Credits: 2 Grading Method: Regular, Pass-Fail

Service-Learning outreach to Prince George's County schools and non-profit agencies.

0101	Heather-Erin Bremenstuhl, Harold Burgess	Seats (Total: 20)
	Th 5:00pm - 7:00pm	Location: TBA

CPSA201 **College Park Scholars: Arts Second-Year Colloquium II**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: CPSA200. Restriction: Students must be matriculated into the College Park Scholars Arts (CPSA) program.

Advanced colloquium II: Arts workshop and Arts Festival.

0101	Heather-Erin Bremenstuhl, Harold Burgess	Seats (Total: 75)
	Tu 6:00pm - 7:30pm	CCC 1100

CPSA240 **College Park Scholars: Arts Service-Learning Practicum**

Credits: 2 Grading Method: Regular, Pass-Fail General Education: DSSP

Prerequisite: CPSA200. Restriction: Students must be matriculated into the College Park Scholars Arts (CPSA) program. Additional information: When paired with successful completion of CPSA 200, students will earn General Education Scholarship-in-Practice credit.

Supervised Service-Learning project in an area related to the arts.

0101	Heather-Erin Bremenstuhl, Harold Burgess	Seats (Total: 15)
	Th 5:00pm - 7:00pm	Location: TBA

CPSA250 **College Park Scholars: Arts Research Practicum**

Credits: 2 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Prerequisite: CPSA200. Restriction: Students must be matriculated into the College Park Scholars Arts (CPSA) program. Additional information: When paired with successful completion of CPSA 200, students will earn General Education Scholarship-in-Practice credit.

Supervised research project in an area related to the arts.

0101	Heather-Erin Bremenstuhl, Harold Burgess Th 2:00pm - 2:50pm Contact instructor or department for details.	Seats (Total: 15) CCC 1105
0201	Heather-Erin Bremenstuhl, Harold Burgess W 3:00pm - 3:50pm Contact instructor or department for details.	Seats (Total: 15) CCC 1105
0301	Heather-Erin Bremenstuhl, Harold Burgess W 2:00pm - 2:50pm Contact instructor or department for details.	Seats (Total: 15) CCC 1105

CPSA260 **College Park Scholars: Arts Peer-Teaching Practicum**

Credits: 2 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Prerequisite: CPSA200. Restriction: Students must be matriculated into the College Park Scholars Arts (CPSA) program. Additional information: When paired with successful completion of CPSA 200, students will earn General Education Scholarship-in-Practice credit.

Supervised peer-teaching project in an area related to the arts.

0101	Harold Burgess, Heather-Erin Bremenstuhl M 5:00pm - 5:50pm Contact instructor or department for details.	Seats (Total: 10) Location: TBA
0201	Heather-Erin Bremenstuhl, Harold Burgess Tu 5:00pm - 5:50pm Contact instructor or department for details.	Seats (Total: 10) Location: TBA
0301	Heather-Erin Bremenstuhl, Harold Burgess Contact instructor or department for details.	Seats (Total: 10)

CPSD College Park Scholars-Science, Discovery & the Universe Spring 2022

CPSD100 **College Park Scholars: Science, Discovery & the Universe First-Year Colloquium A**

Credits: 1 Grading Method: Regular, Pass-Fail

Restriction: Students must be enrolled in the College Park Scholars Science, Discovery & the Universe (CPSD) program. Additional information: Both freshman colloquia (CPSD 100 and 101) are required for students to earn their College Park Scholars citations; however, they can be taken in any order during a student's first year.

Introductory colloquium: Examination of issues related to science, discovery and the universe.

Science and Pseudoscience.

0101	Erin Thomson, Alan Peel	Seats (Total: 40)
	Th 3:30pm - 4:30pm	CCC 1205

CPSD101 **College Park Scholars: Science, Discovery & the Universe First-Year Colloquium B**

Credits: 1 Grading Method: Regular, Pass-Fail

Restriction: Students must be enrolled in the College Park Scholars Science, Discovery & the Universe (CPSD) program. Additional information: Both freshman colloquia (CPSD 100 and 101) are required for students to earn their College Park Scholars citations; however, they can be taken in any order during a student's first year.

Introductory colloquium: Examination of the intersection of astronomy and culture; and the roles of science, exploration and communication in the process of discovery.

History and Culture of Astronomy.

0101	Erin Thomson, Alan Peel	Seats (Total: 45)
	Th 3:30pm - 4:30pm	CCC 1111

CPSD230 **College Park Scholars: Science, Discovery & the Universe - Internship Practicum**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Prerequisite: CPSD200. Restriction: Students must be enrolled in the College Park Scholars Science, Discovery & the Universe (CPSD) program.

Supervised internship project in an interest area related to science, discovery and the universe.

0101	Erin Thomson, Alan Peel Th 5:30pm - 6:30pm	Seats (Total: 25) CCC 1205

CPSD240 **College Park Scholars: Science, Discovery & the Universe - Service-Learning Practicum**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Prerequisite: CPSD200. Restriction: Students must be enrolled in the College Park Scholars Science, Discovery & the Universe (CPSD) program.

Supervised Service-Learning project in an interest area related to science, discovery and the universe.

0101	Erin Thomson, Alan Peel Th 5:30pm - 6:30pm	Seats (Total: 10) CCC 1205

CPSD250 **College Park Scholars: Science, Discovery & the Universe - Research Practicum**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Prerequisite: CPSD200. Restriction: Students must be enrolled in the College Park Scholars Science, Discovery & the Universe (CPSD) program.

Supervised research project in an interest area related to science, discovery and the universe.

0101	Erin Thomson, Alan Peel Th 5:30pm - 6:30pm	Seats (Total: 25) CCC 1205

CPSF College Park Scholars-Life Sciences Spring 2022

CPSF101 **College Park Scholars: Life Sciences First-Year Colloquium II**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: CPSF100. Restriction: Students must be enrolled in the College Park Scholars Life Sciences (CPSF) program.

Further examination of issues related to the life sciences.

0101	Beth Parent, Jimmy McClellan W 3:30pm - 5:00pm	Seats (Total: 100) ESJ 1202

CPSG College Park Scholars-Science and Global Change Spring 2022

CPSG101 **College Park Scholars: Science & Global Change First-Year Colloquium II**

Credits: 1

Grading Method: Regular, Pass-Fail

Prerequisite: CPSG100. Restriction: Students must be enrolled in the College Park Scholars Science & Global Change (CPSG) program.

Introductory colloquium II: Continued examination of issues related to science and global change.

0101	Thomas Holtz	Seats (Total: 91)
	Tu 3:30pm - 4:50pm	CCC 1205

CPSG230 **College Park Scholars: Science & Global Change - Internship Practicum**

Credits: 1-3

Grading Method: Regular, Pass-Fail

Prerequisite: CPSG200. Restriction: Students must be enrolled in the College Park Scholars Science & Global Change (CPSG) program.

Supervised internship in an interest area related to science and global change.

0101	Thomas Holtz, John Merck	Seats (Total: 75)
	Contact instructor or department for details.	

CPSG240 **College Park Scholars: Science & Global Change - Service-Learning Practicum**

Credits: 1-3

Grading Method: Regular, Pass-Fail

Prerequisite: CPSG200. Restriction: Students must be enrolled in the College Park Scholars Science & Global Change (CPSG) program.

Supervised Service-Learning experience in an interest area related to science and global change.

0101	Thomas Holtz, John Merck	Seats (Total: 25)
	Contact instructor or department for details.	

CPSG250 **College Park Scholars: Science & Global Change - Research Practicum**

Credits: 1-3

Grading Method: Regular, Pass-Fail

Prerequisite: CPSG200. Restriction: Students must be enrolled in the College Park Scholars Science & Global Change (CPSG) program.

Supervised research experience in an interest area related to science and global change.

0101	Thomas Holtz, John Merck	Seats (Total: 25)
	Contact instructor or department for details.	

CPSN College Park Scholars-International Studies Spring 2022

CPSN101 College Park Scholars: International Studies First-Year Colloquium II

Credits: 1 Grading Method: Regular, Pass-Fail General Education: DVCC

Prerequisite: CPSN100. Restriction: Students must be enrolled in the College Park Scholars International Studies (CPSN) program. Additional information: When paired with the successful completion of CPSN 100, students will earn Diversity/Cultural Competence General Education credits.

Introductory colloquium II: Continued examination of issues related to international studies.

0101	Daniel Tuke	Seats (Total: 24)
	Tu 2:00pm - 3:15pm	CCC 1100
0102	Daniel Tuke	Seats (Total: 24)
	Tu 2:00pm - 3:15pm	CCC 1100
0103	Stacy Kosko, Daniel Tuke	Seats (Total: 24)
	Tu 2:00pm - 3:15pm	CCC 1100

CPSN230 College Park Scholars: International Studies - Internship Practicum

Credits: 1-3 Grading Method: Regular, Pass-Fail

Prerequisite: CPSN101. Restriction: Students must be enrolled in the College Park Scholars International Studies (CPSN) program.

Supervised internship project in an area related to international studies.

0101	Sarah Kilmer	Seats (Total: 40)
	Contact instructor or department for details.	

CPSN240 College Park Scholars: International Studies - Service-Learning Practicum

Credits: 1-3

Grading Method: Regular, Pass-Fail

Prerequisite: CPSN101. Restriction: Students must be enrolled in the College Park Scholars International Studies (CPSN) program.

Supervised Service-Learning project in an area related to international studies.

0101	Sarah Kilmer	Seats (Total: 15)
	Contact instructor or department for details.	

CPSN250 **College Park Scholars: International Studies - Research Practicum**

Credits: 1-3

Grading Method: Regular, Pass-Fail

Prerequisite: CPSN101. Restriction: Students must be enrolled in the College Park Scholars International Studies (CPSN) program.

Supervised research in an area related to international studies.

0101	John Derks	Seats (Total: 25)
	Contact instructor or department for details.	

CPSP College Park Scholars Program Spring 2022

CPSP239 **Practicum: Internship**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Supervised internship in interest area related to the theme of the students' College Park Scholars program.

Contact department for information to register for this course.

CPSP239P **Practicum: Internship**

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Supervised internship in interest area related to the theme of the students' College Park Scholars program.

Contact department for information to register for this course.

CPSP259I **Practicum: Research**

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Supervised research project in interest area related to the students' College Park Scholars program.

Contact department for information to register for this course.

CPSP259J **Practicum: Research; Media, Self and Society**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Supervised research project in interest area related to the students' College Park Scholars program.

Restricted to College Park Scholars-Media, Self and Society.

0101	Kelly Brower, Alison Burns	Seats (Total: 10)
	Contact instructor or department for details.	

CPSP269E **Practicum: Peer Teaching**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Supervised peer teaching in students' College Park Scholars program.

Contact department for information to register for this course.

CPSP269G **Practicum: Peer Teaching; Science and Global Change**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Supervised peer teaching in students' College Park Scholars program.

Contact department for information to register for this course.

CPSP269J **Practicum: Peer Teaching**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Supervised peer teaching in students' College Park Scholars program.

Contact department for information to register for this course.

CPSP279K **Practicum: Study Abroad; London and British Empire**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Supervised international experience that satisfies students' College Park Scholars practicum requirement.

Contact department for information to register for this course.

CPSP339J **Advanced Practicum: Internship**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Independent study designed for students who wish to extend in greater depth and detail projects begun in sophomore year. Subject varies. Overseen by faculty director or mentor.

Contact department for information to register for this course.

CPSP339P **Advanced Practicum: Internship**

Credits: 1-3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Independent study designed for students who wish to extend in greater depth and detail projects begun in sophomore year. Subject varies. Overseen by faculty director or mentor.

0101	Susannah Washburn, Kelly Brower	Seats (Total: 5)
	Contact instructor or department for details.	

CPSP349T **College Park Scholars: Infrastructure and Society**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Restriction: Must be currently enrolled in a College Park Scholars program. Credit only granted for: CPSP349T or CPSS340. Formerly: CPSP349T.

One of the most important, and underappreciated, aspects of our society is its infrastructure (roads, buildings, communication systems, water delivery systems, sanitation systems, energy systems, etc.). We often take for granted the services infrastructure bring us. As a consequence, the United States, which at one time was a world leader in creating infrastructure, is experiencing an infrastructure crisis. Furthermore, not everyone experiences this issue equally. This course is designed to identify the root causes of the crisis. You will explore emerging social, political, legal, cultural, and social justice issues associated with the building and maintenance of infrastructure from the perspective of Science and Technology Studies (STS) and engineers. You will work with a volunteer corps of professional engineers from a variety of disciplines on a service-learning project designed to assess the safety and vitality of infrastructure.

Infrastructure and Society.

0101	Nicole Mogul, Mira Azarm	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	ESJ 2101

CPSP359B **Advanced Practicum: Research: Using Company Culture to Gain a Competitive Advantage**

Credits: 1-3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Contact department for information to register for this course.

CPSP359D **Advanced Practicum: Research**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

0101	Alan Peel Th 5:30pm - 6:30pm Contact instructor or department for details.	Seats (Total: 10) CCC 1205

CPSP359G **Advanced Practicum: Research**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

0101	Thomas Holtz, John Merck Contact instructor or department for details.	Seats (Total: 25)

CPSP359N **Advanced Practicum: Research: International Studies**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Contact department for information to register for this course.

CPSP359S **Advanced Practicum: Research: Discovery Research**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

0101	David Eubanks TuTh 11:00am - 12:15pm	Seats (Total: 20) CCC 1200

CPSP369A **Advanced Practicum: Peer Teaching; Arts**

Credits: 1-3 | Grading Method: Regular, Pass-Fail

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP369D **Advanced Practicum: Peer Teaching**

Credits: 1-3 | Grading Method: Regular, Pass-Fail, Audit

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP369E **Advanced Practicum: Peer Teaching**

Credits: 1-3 | Grading Method: Regular, Pass-Fail

Supervised advanced practicum in peer instruction.

0101	Tim Knight, Edward Sinnes	Seats (Total: 7)
	Contact instructor or department for details.	

CPSP369G **Advanced Practicum: Peer Teaching; Science and Global Change**

(Perm req)

Credits: 1-3 | Grading Method: Regular, Pass-Fail

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP369J **Teaching and Learning about Cultural Diversity through Intergroup Dialogue: Dialogue Facilitation Practicum**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVCC

Cross-listed with: CHSE338J, HONR338J. Credit only granted for: CHSE338J, HONR338J, or CPSP369J.

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on identity-based topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

0101	Carlton Green, Jazmin Pichardo	Seats (Total: 18)
	Th 3:30pm - 6:00pm	CCC 1115

CPSP369P **Advanced Practicum: Peer Teaching; Public Leadership**

Credits: 1-3 | Grading Method: Regular, Pass-Fail

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP369T **Advanced Practicum: Peer Teaching; Science, Technology, and Society**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP379B **Advanced Practicum: Study Abroad: Dubai: Global Immersion Experience**

Credits: 3 Grading Method: Regular, Pass-Fail , D General Education: DVCC

Contact department for information to register for this course.

CPSP379D **Advanced Practicum: Study Abroad; United Arab Emirates: Global Immersion**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced, supervised study-abroad experience.

Contact department for information to register for this course.

CPSP386E **Experiential Learning**

Credits: 3-6 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

CPSP388D **Advanced Special Topics in College Park Scholars; Hawaiian Culture**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Interdisciplinary topics of special interest to College Park Scholars, such as legacies of the cold war, environmental ethics, women in leadership, and other timely issues. Projects build on previous work in College Park Scholars.

Contact department for information to register for this course.

CPSP388E **Advanced Special Topics in College Park Scholars; Pedagogy and Design in ETE**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Interdisciplinary topics of special interest to College Park Scholars, such as legacies of the cold war, environmental ethics, women in leadership, and other timely issues. Projects build on previous work in College Park Scholars.

Contact department for information to register for this course.

CPSS College Park Scholars-Science, Technology and Society — Spring 2022

CPSS101 **College Park Scholars: Science, Technology & Society First-Year Colloquium II**

Credits: 1 | Grading Method: Regular, Pass-Fail

Prerequisite: CPSS100. Restriction: Students must be enrolled in the College Park Scholars Science, Technology & Society (CPSS) program.

Continued examination of issues related to science, technology and society.

0101	Nicole Mogul, David Tomblin M 4:00pm - 5:20pm	Seats (Total: 90) CCC 1205

CPSS225 **College Park Scholars Capstone: Science, Technology, and Society**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, SCIS

Prerequisite: CPSS100. Restriction: Must be in the College Park Scholars Science, Technology & Society (CPSS) program. Formerly: CPSP227.

Exploration and understanding of ways science and technology shape and are shaped by society.

0201	Matthew Aruch TuTh 12:30pm - 1:45pm *Global Capstone*	Seats (Total: 15) CCC 1115
0301	Thomas Zeller TuTh 11:00am - 12:15pm	Seats (Total: 20) CCC 1115

CPSS240 **College Park Scholars: Science, Technology & Society - Service-Learning Practicum**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP, SCIS

Restriction: Matriculation into the College Park Scholars Science, Technology & Society (CPSS) program; or permission of instructor.

Supervised Service-Learning practicum in issues related to science, technology and society.

0101	Vivian Zohery	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	CCC 1115
	Engineering Kit Design	

DANC Dance Spring 2022

DANC109 **Choreography I: Improvisation**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An introduction to the process of spontaneous movement discovery involving solo and group movement experiences.

Students must pay a $25.00 lab fee.

5501	Sara Pearson	Seats (Total: 14)
	TuTh 11:00am - 12:15pm	PAC 1912

DANC118 **Beginning Tap**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Introduction to tap for the beginning student.

Students must pay a $25 course fee.

5501	Janet Schroeder	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	PAC 1912

DANC119 **Introduction to American Social Dance**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Social dance forms of North America.

Students must pay a $25 lab fee.

5501	Rebecca Hill	Seats (Total: 25)	
	MW 1:00pm - 2:15pm	PAC 1908	Lab

DANC128 **Fundamentals of Ballet**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Introduction to ballet technique and terminology for the beginning student.

Students must pay a $25.00 lab fee.

5501	Christina Robson	Seats (Total: 25)	
	TuTh 9:30am - 10:45am	PAC 1908	Lab

DANC138A **Global Dance Forms; Jazz for Musical Theatre**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit , D

Movement course. Traditional dances and music of selected cultures.

5501	Gabriel Mata-Ortega	Seats (Total: 20)	
	TuTh 12:00pm - 1:15pm	PAC 3736	Lab

DANC138R **Global Dance Forms; Somatic Process**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit , D

Movement course. Traditional dances and music of selected cultures.

This course explores the somatic arts: fun and exciting forms of embodiment, movement, exercise, and play. Students learn about their ownmovement habits, preferences, and styles through encounters with a diverse array of movement modalities, global perspectives, and experiential anatomy. Weekly topics include Yoga, Qi Gong, Tae Kwon Do, Franklin Method , Spiraldynamik , Rolf Movement , Dunham Technique, Capoeira, Gyrokinesis , and Yorrcha. The semester primarily includes participatorymovement practice, supplemented with reading, critical analyses, class discussions, observational skill, written reflections, and a final presentation. Through regular engagement, students cultivatean embodied discourse around somatic process in a global context.

5501	Tristan Koepke	Seats (Total: 20)	
	MW 3:30pm - 4:45pm	PAC 1908	Lab

DANC148 **Fundamentals of Modern Dance**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Introduction to modern dance with emphasis on the development of fundamental movement skills.

Students must pay a $25.00 lab fee.

5502	Alvin Mayes TuTh 9:30am - 10:45am	Seats (Total: 30) PAC 1912	Lab
5503	Rebecca Steinberg TuTh 12:30pm - 1:45pm	Seats (Total: 30) PAC 1912	Lab

DANC199 **Practicum in Choreography, Production and Performance I**

(Perm req)

Credits: 1-2 Grading Method: Regular, Pass-Fail, Audit

Choreography, production, and performance of student works, both on and off campus.

Contact department for information to register for this course.

DANC200 **Introduction to Dance**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HA, D General Education: DSSP

A study of dance as a form of communication and as an art form; a survey of the theories and styles of dance, and their relationships to other art forms.

0101	Caroline Rocher Barnes TuTh 12:30pm - 1:45pm	Seats (Total: 25) SQH 1117
0201	Adriane Fang TuTh 2:00pm - 3:15pm	Seats (Total: 25) PAC 1912
0301	Cyrah Ward TuTh 11:00am - 12:15pm	Seats (Total: 25) PLS 1146

DANC207 **Choreography II: The Creative Process**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: DANC109. Restriction: Permission of ARHU-Dance department.

Explorations in movement, music, words, objects, and environments through improvisation and choreographic problem solving.

Students must pay a $25.00 lab fee.

5501	Patrik Widrig	Seats (Total: 16)	
	MW 11:00am - 12:50pm	PAC 1908	Lab

DANC218 **Modern Dance I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Development of heightened body awareness, breath support, dynamic alignment, and spatial awareness. Focus on rhythmic clarity and musicality.

Prerequisite: permission of department. Students must pay a $25 lab fee.

5501	Marielis Garcia	Seats (Total: 15)	
	MWF 1:00pm - 2:30pm	PAC 1912	Lab

DANC219 **Modern Dance II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Continuation of the elements addressed in DANC218 with an added focus on momentum, the use of counter-tension, stability/mobility, suspension, and dynamic range.

Prerequisite: DANC218 and permission of department. Students must pay a $25 lab fee.

5501	Marielis Garcia	Seats (Total: 16)	
	MWF 1:00pm - 2:30pm	PAC 1912	Lab

DANC228 **Ballet I**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Barre and center work for alignment, strength, flexibility and coordination. Introduction to ballet terminology.

Students must pay a $25 lab fee.

5501	Marielis Garcia	Seats (Total: 10)	
	TuTh 2:00pm - 3:15pm	PAC 1908	Lab

DANC229 **Ballet II**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Continuation of DANC228.

Students must pay a $25 lab fee.

5501	Marielis Garcia	Seats (Total: 10)	
	TuTh 2:00pm - 3:15pm	PAC 1908	Lab

DANC299 **Practicum in Choreography, Production and Performance II**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Continuation of DANC199.

Contact department for information to register for this course.

DANC318 **Modern Dance III**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Continuation of the elements addressed in DANC219 with an added focus on off-verticality, spirals, complex level changes, more complex and extended phrasing, responsiveness to accompaniment, vocalization.

Prerequisite: DANC219 an permission of department. Students must pay $25 lab fee.

5501	Patrik Widrig	Seats (Total: 10)	
	MWF 9:00am - 10:30am	PAC 1908	Lab

DANC319 **Modern Dance IV**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Continuation of the elements addressed in DANC318 with an added focus on movement subtlety and complexity, and stylistic demands.

Prerequisite: DANC318 and permission of department. Students must pay $25 lab fee.

5501	Patrik Widrig	Seats (Total: 10)	
	MWF 9:00am - 10:30am	PAC 1908	Lab

DANC328 **Ballet III**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Execution of the vocabulary of ballet movement with technical accuracy.

Students must pay a $25.00 lab fee.

5501	Kendra Portier	Seats (Total: 10)	
	TuTh 11:00am - 12:15pm	PAC 1908	Lab

DANC329 **Ballet IV**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Continuation of DANC328.

Students must pay a $25.00 lab fee.

5501	Kendra Portier	Seats (Total: 10)	
	TuTh 11:00am - 12:15pm	PAC 1908	Lab

DANC338P **Global Movement Practices; Advance Hip Hop**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Intermediate/Advanced level physical practice that sources a range of dance practices relevant to the current dance field in order to expose students to a plurality of techniques as a form of inclusive investigation.

0101	Susan Miller, Ephrat Asherie	Seats (Total: 20)	
	Tu 10:00am - 12:15pm	ONLINE	

DANC371 **Somatics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: DANC179. Restriction: Permission of ARHU-Dance department.

Current ideas and trends in dance technique, with a focus on the incorporation of dance science and somatics into dance training.

5501	Tristan Koepke	Seats (Total: 12)	
	MW 3:30pm - 4:45pm	PAC 1908	Lab

DANC383 **Dance History & Theory**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ARHU-Dance department. Credit only granted for: DANC283 or DANC383. Formerly: DANC283.

With a primary focus on Western concert dance from the 20th and 21st centuries, this course proposes an understanding of dance as it is situated in historical and cultural contexts. Rather than proposing a canon of "masterworks", this course interrogates choreography and other dance practices from multiple perspectives such as feminist theories, race, gender, and sexuality studies.

0101	Janet Schroeder	Seats (Total: 15)	
	TuTh 9:30am - 10:45am	PAC 1815	

DANC399 **Practicum in Choreography, Production and Performance III**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Continuation of DANC299.

Contact department for information to register for this course.

DANC405 **Dance Education II: Education & Policy**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ARHU-Dance department.

Curricula in dance in K-12 settings, classroom management, assessment/grading, and best practices in dance education in public schools. Current research and policy issues are included. This course counts towards teacher certification in the State of Maryland.

0101	Crystal Davis	Seats (Total: 12)	
	MW 1:00pm - 2:15pm	PAC 1611	

DANC448 **Modern Dance V**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Complex phrases of modern dance movement with emphasis on articulation and expression.

Prerequisite: DANC319 and audition. Students must pay a $25.00 lab fee.

5501	Alvin Mayes	Seats (Total: 10)	
	MWF 9:00am - 10:30am	PAC 1912	Lab

DANC449 **Modern Dance VI**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Continuation of DANC448.

Prerequisite: DANC448. Students must pay a $25.00 lab fee.

5501	Alvin Mayes	Seats (Total: 6)	
	MWF 9:00am - 10:30am	PAC 1912	Lab

DANC468 **Dance Repertory**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Form, content, music, design and performance of modern dance works.

Students must pay a $25.00 lab fee.

5501	Marielis Garcia, Adriane Fang	Seats (Total: 12)	
	TuTh 3:30pm - 5:00pm	PAC 1908	Lab

DANC488 **Project-Based Learning**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A specific project, is addressed, in dance from the perspectives of the investigator, the creator/choreographer, and the performer. Projects are cross-disciplinary and/or cross-cultural, and may involve both on- and off-campus experiences.

Students must pay a $25 lab fee.

5501	Brian MacDevitt, Sara Pearson	Seats (Total: 10)	
	MW 3:30pm - 5:00pm	PAC 1912	Lab

DANC489B **Special Topics in Dance; The Business of the Business**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Theoretical, choreographic, pedagogic, or performance study.

Cross-listed with THET363. Credit only granted for THET363 or DANC489B.

0101	Carlo Villanueva MW 12:00pm - 1:15pm	Seats (Total: 20) PAC 1815

DANC489O **Special Topics in Dance; Contemporary Modern Technique**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Theoretical, choreographic, pedagogic, or performance study.

Students must pay a $25 lab fee.

5501	Britney Falcon TuTh 12:30pm - 1:45pm	Seats (Total: 15) PAC 1908

DANC499 **Practicum in Choreography, Production and Performance IV**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Advanced workshop in dance presentation, including performing, production and planned field experiences.

Contact department for information to register for this course.

DANC611 **Dance Technology and Media**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

Project-based development of media and technological support for dance performance, archiving, and portfolio design, development and implementation.

Students must pay a $25.00 lab fee.

5501	Samuel Crawford MW 1:00pm - 1:50pm	Seats (Total: 5) PAC 1610

DANC647 **Dance and Movement Practice**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

Experiential studio work that generates common movement vocabulary and innovations of same in a shared, faculty-led exploration of movement for the purpose of generating vocabulary for technique, choreography, and pedagogy.

Contact department for information to register for this course.

DANC648 **Advanced Modern Dance Technique I**

Credits: 1 Grading Method: Regular, Audit

Professional level training in contemporary dance techniques.

Students must pay a $25 lab fee.

5501	Alvin Mayes	Seats (Total: 8)	
	MWF 9:00am - 10:30am	PAC 1912	Lab

DANC649 **Advanced Modern Dance Technique II**

Credits: 1 Grading Method: Regular, Audit

A continuation of DANC 648.

Students must pay a $25 lab fee.

5501	Alvin Mayes	Seats (Total: 10)	
	MWF 9:00am - 10:30am	PAC 1912	Lab

DANC678 **Individual Movement Practice**

Credits: 2 Grading Method: Regular

Students in consultation with the adviser, propose a specific movement practice and can select the practice from the range of technique offerings in the program. Additional work in documenting and providing evidence of growth towards individual outcomes is required.

Contact department for information to register for this course.

DANC679 **Graduate Dance Performance**

Credits: 1-3 Grading Method: Regular, Audit

An advanced performance course focusing on the restagings from noted scores of the choreographic works of significant artists in the field.

Contact department for information to register for this course.

DANC689B **Special Topics in Dance; Graduate Ballet**

(Perm req)

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Special Topics in dance theory, research or creative projects.

5501	Kendra Portier	Seats (Total: 5)	
	TuTh 11:00am - 12:15pm	PAC 1908	

DANC689E **Special Topics in Dance; Dance Pedagogy - Ballet**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Special Topics in dance theory, research or creative projects.

0101	Marielis Garcia	Seats (Total: 3)	
	TuTh 2:00pm - 3:15pm	PAC 1908	

DANC689T **Special Topics in Dance; Graduate Tap**

(Perm req)

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Special Topics in dance theory, research or creative projects.

5501	Janet Schroeder	Seats (Total: 2)	
	TuTh 3:30pm - 4:45pm	PAC 1912	Lab

DANC698 **Independent Study in Dance**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit

Directed independent study in theoretical topics.

Contact department for information to register for this course.

DANC708 **Graduate Choreography II: Collaboration; Collaborative Work**

Credits: 3

Grading Method: Regular, Audit

Collaborative work across disciplines and genres.

Students must pay a $25.00 lab fee.

5501	Kendra Portier MW 11:00am - 12:50pm	Seats (Total: 5) PAC 1610

DANC777 **Internship in Dance**

(Perm req)

Credits: 1-5 Grading Method: Regular

Restriction: Must be admitted to MFA in Dance; or permission of ARHU-School of Theatre, Dance & Performance Studies department.

Internship in dance advocacy, administration, education, community building, choreography, or performance with an agency off campus and with a national or international profile.

0701	Crystal Davis Contact instructor or department for details.	Seats (Total: 5)

DANC779 **Master's Tutorial for Performance**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Supervised performance experience for advanced dancers.

0701	Crystal Davis Contact instructor or department for details.	Seats (Total: 10)

DANC784 **Dance in a Global Context**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be admitted to MFA in Dance; or permission of ARHU-School of Theatre, Dance & Performance Studies department.

Topics that illuminate dance in global context and provides an overview of methods, challenges and perspectives to the study of dance cross-culturally will be considered. Simultaneously, surveys select dance practices spanning many geographical areas, and offers insight into the diverse social, cultural, religious, and political environments from which dance extends.

0101	Janet Schroeder W 2:00pm - 4:45pm	Seats (Total: 8) PAC 1924

DANC788 **Master's Tutorial for Choreography**

Credits: 1-3 Grading Method: Regular, Audit

Supervised production and presentation of a significant choreographic project.

Contact department for information to register for this course.

DANC789 **Directed Study in Dance Theory; Directed Study in Dance Theory**

Credits: 2-6 Grading Method: Regular, Audit

Advanced directed study in dance history, theory or criticism culminating in a paper for presentation or publication.

Contact department for information to register for this course.

DANC799 **Master's Thesis Project**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

DATA Data Science and Analytics Spring 2022

DATA604 **Data Representation and Modeling**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: DATA601 or MSML601.

An introductory course connecting students to the most recent developments in the field of data science. It covers several fundamental mathematical concepts which form the foundations of Big Data theory. Among the topics included are Principal Component Analysis, metric learning and nearest neighbor search, elementary spectral graph theory, minimum and maximum graph cuts, graph partitions, Laplacian Eigenmaps, manifold learning and dimension reduction concepts, clustering and classification techniques such as k-means, kernel methods, Mercer's theorem, and Support Vector Machines. Some relevant concepts from geometry and topology will be also covered.

PCS1	Wojciech Czaja	Seats (Total: 50)
	W 6:00pm - 8:45pm	CSI 1122
	Must be in Graduate Programs in Science Academy. All other graduate students must request permission. Contact oes@umd.edu.	

DATA605 **Big Data Systems**

Credits: 3 Grading Method: Regular

Prerequisite: DATA602. Restriction: Must be in the Data Science Post-Baccalaureate Certificate of Professional Studies or Master of Professional Studies in Data Science and Analytics program. Credit only granted for: DATA605 or CMSC642. Formerly: CMSC642.

An overview of data management systems for performing data science on large volumes of data, including relational databases, and NoSQL systems. The topics covered include: different types of data management systems, their pros and cons, how and when to use those systems, and best practices for data modeling.

PCS1	Prem Saggar	Seats (Total: 50)
	Th 6:00pm - 8:45pm	ESJ 2208
	Must be in Graduate Programs in Science Academy. All other graduate students must request permission. Contact oes@umd.edu.	

DATA606 **Algorithms for Data Science**

Credits: 3 Grading Method: Regular

Prerequisite: DATA602. Restriction: Must be in the Data Science Post-Baccalaureate Certificate of Professional Studies or Master of Professional Studies in Data Science and Analytics program. Credit only granted for: DATA606 or CMSC644. Formerly: CMSC644.

Provides an in-depth understanding of some of the key data structures and algorithms essential for advanced data science. Topics include random sampling, graph algorithms, network science, data streams, and optimization.

PCS1	Abdirisak Mohamed	Seats (Total: 50)
	M 6:00pm - 8:45pm	IRB 2207
	Must be in Graduate Programs in Science Academy. All other graduate students must request permission. Contact oes@umd.edu.	

DATA641 **Natural Language Processing**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: DATA603 or MSML603. Cross-listed with: MSML641. Credit only granted for: DATA641 or MSML641.

Introduces fundamental concepts and techniques involved in getting computers to deal more intelligently with human language. Focused primarily on text (as opposed to speech), the class will offer a grounding in core NLP methods for text processing (such as lexical analysis, sequential tagging, syntactic parsing, semantic representations, text classification, unsupervised discovery of latent structure), key ideas in the application of deep learning to language tasks, and consideration of the role of language technology in modern society.

PCS1	Shabnam Tafreshi	Seats (Total: 50)
	Tu 6:00pm - 8:45pm	CSI 1122
	Must be in Graduate Programs in Science Academy. All other graduate students must request permission. Contact oes@umd.edu.	

EALL East Asian Languages and Literatures Spring 2022

EALL284 **East Asian Cultures I**

Credits: 3 Grading Method: Regular

Invites students to participate in the great debates that defined civilization in China, Korea, and Japan: the legitimation of government authority, philosophical disputes, religious beliefs and practices, institutional change, the writing of history, and the search for a modernity in East Asia. Although largely concerned with texts and contexts before the twentieth-century, this course provides a background for the understanding of many debates in East Asia today. Taught in English.

0101	Andrew Schonebaum	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	JMZ 1122

ECON Economics Spring 2022

ECON175 **Inequality: Determinants and Policy Remedies**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSHS, SCIS

History shows that the gap between the rich and the poor has varied over time within and between countries, most recently seeming to increase within many countries while somewhat decreasing between countries. This course challenges students to investigate why people make different amounts of money, why income inequality has changed dramatically in recent years, what public policy tools exist to counter inequality increases, and what different institutional arrangements different countries use to lower inequality. This course will introduce students to theoretical tools used by economists to understand the sources of inequality and will also examine various empirical measures of inequality.

0101	Sergio Urzua	Seats (Total: 120)
	MW 9:30am - 10:45am	ESJ 2204

ECON185 **Energy: Crisis or Breakthrough?**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSHS, SCIS

Will we face an energy crisis in the near future, or will technological breakthroughs solve problems? Will we destroy the environment by careless use of polluting energy, or we will find new and clean sources of energy that resolves the environmental issue once and for all? Will politicians and governments succeed in agreeing on a coherent strategy to deal with global issues related to energy, or do we expect individual countries to move in different directions and exacerbate the problems? Students will explore the demand and supply sides of the energy market and their relationships with government policies and environmental concerns. Students will also analyze empirical evidence to better understand the factors affecting energy production and consumption in the past and possible directions in the future. By examining past situations when technological change mitigated problems in energy markets, we can make informed predictions about what could happen next.

0101	Hossein Abbasi TuTh 9:30am - 10:45am	Seats (Total: 120) ESJ 2204

ECON200 **Principles of Microeconomics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

Prerequisite: MATH107 or MATH110; or must have math eligibility of MATH113 or higher. Credit only granted for: ECON200, AREC240, or AREC250. Additional information: It is recommended that students complete ECON200 before taking ECON201.

Introduces economic models used to analyze economic behavior by individuals and firms and consequent market outcomes. Applies conceptual analysis to several policy issues and surveys a variety of specific topics within the broad scope of microeconomics.

0101	Erin Moody TuTh 11:00am - 12:15pm	Seats (Total: 375) TYD 0130
0201	Erin Moody TuTh 12:30pm - 1:45pm	Seats (Total: 375) TYD 0130

ECON201 **Principles of Macroeconomics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

Prerequisite: MATH107 or MATH110; or must have math eligibility of MATH113 or higher. Recommended: ECON200. Credit only granted for: ECON201 or ECON205.

An introduction to how market economies behave at the aggregate level. The determination of national income/output and the problems of unemployment inflation, will be examined, along with monetary and fiscal policy.

0101	John Shea TuTh 2:00pm - 3:15pm	Seats (Total: 375) TYD 0130
0201	Naveen Sarna TuTh 3:30pm - 4:45pm	Seats (Total: 375) TYD 0130

ECON230 **Applied Economic Statistics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSAR

Prerequisite: Must have math eligibility of MATH113 or higher; or 1 course with a minimum grade of C- from (MATH107, MATH110); and minimum grade of C- in ECON200 and ECON201. Recommended: Students should already have basic familiarity with Microsoft Excel or similar spreadsheet software. Restriction: Must be in Economics Bachelor of Arts program. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201.

Introductory course to develop understanding of statistical concepts used in applied economics. Students will acquire skills needed to calculate and interpret statistical concepts, including descriptive statistics, probability, discrete and continuous distributions, sampling, point and interval estimations, hypothesis testing, basic analysis of variance, and simple linear regression models. Students will apply these concepts to data using both handheld calculators and spreadsheets(Excel), and students will be introduced to an econometric software package such as SPSS or SAS or R.

0101	Pierre De Leo MW 2:00pm - 3:15pm	Seats (Total: 38) TYD 2109

ECON300 **Methods and Tools for Economic Analysis**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON200, ECON201); and minimum grade of C- in MATH140. Restriction: Must be in Economics Bachelor of Science program; and must not have completed MATH241.

Economic application of mathematical tools and concepts necessary for intermediate and advanced coursework in economics. Topics include: multivariable calculus, constrained optimization, foundational coverage of probability theory, and exponential/logarithmic functions.

0101	Chenyu Yang MW 3:30pm - 4:45pm	Seats (Total: 60) TYD 1101

ECON305 **Intermediate Macroeconomic Theory and Policy**

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ECON201 and ECON200. And 1 course with a minimum grade of C- from (MATH120, MATH130, MATH136, MATH140); or must have completed MATH220 with a minimum grade of C-. Credit only granted for: ECON305 or ECON325.

Analysis of the determination of national income, employment, and price levels. Discussion of consumption, investment, inflation, and government fiscal and monetary policy.

0101	Martina Copelman TuTh 9:30am - 10:45am	Seats (Total: 150) ESJ 1224
0201	Martina Copelman TuTh 11:00am - 12:15pm	Seats (Total: 150) ESJ 1224

ECON306 **Intermediate Microeconomic Theory & Policy**

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: 1 course with a minimum grade of C- from (ECON200, AREC250); and minimum grade of C- in ECON201. And 1 course with a minimum grade of C- from (MATH120, MATH130, MATH136, MATH140); or must have completed MATH220 with a minimum grade of C-. Credit only granted for: ECON306, ECON326, AREC489M, or AREC326.

Analysis of the theories of consumer behavior, producer behavior, different market structures, and various sources of inefficient outcomes. Analysis of microeconomic policies designed to improve market outcomes.

0101	Aaron Finkle MWF 12:00pm - 12:50pm	Seats (Total: 150) ESJ 2204
0201	Aaron Finkle MWF 1:00pm - 1:50pm	Seats (Total: 150) ESJ 2204

ECON310 **European Economic History**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ECON201 and ECON200.

The evolution of the capitalist system from its medieval origins to the present. Emphasis on dynamic forces of cumulative change in capitalism, including capital accumulation, technology, expansion of markets, the corporate form of private property in the means of production, and the relation of capitalism to war and revolution.

Contact department for information to register for this course.

ECON311 **American Economic History Before the Civil War**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Restriction: Must be in Economics Bachelor of Arts program.

Economic concepts are used to analyze various aspects of the founding and early history of the U.S., including the British settlement of the North American colonies, the economics of the American Revolutionary war, the writing of the Constitution, the development of financial markets, policies on public lands and the spread of western agriculture, slavery, banking, and early industrialization.

0101	John Wallis	Seats (Total: 90)
	TuTh 9:30am - 10:45am	TWS 1100

ECON314 **Economic History, Development and Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ECON200 and ECON201.

Study abroad in the economic history, institutional development, and recent economic policy problems of selected areas.

Contact department for information to register for this course.

ECON315 **Economic Development of Underdeveloped Areas**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Credit only granted for: ECON315 or ECON416.

Analysis of the economic and social characteristics of underdeveloped areas. Recent theories of economic development, obstacles to development, policies and planning for development.

Contact department for information to register for this course.

ECON317 **Global Economic Policies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Restriction: Must be in Economics Bachelor of Arts program.

Analysis of policy options and debates on fostering economic growth and development in a global economy where national boundaries are no longer relevant. Topics covered will include real loanable funds markets in both local and international contexts during normal conditions and during financial crises, the design of trade and industrial policies, and the role of the World Bank, IMF, WTO, and other international agencies as well as regional and bilateral trade agreements. Emerging economies will be emphasized.

0101	Naveen Sarna TuTh 12:30pm - 1:45pm	Seats (Total: 38) TYD 0111	
0201	Naveen Sarna TuTh 2:00pm - 3:15pm	Seats (Total: 38) TYD 0111	

ECON321 **Economic Statistics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON200 and ECON201; and minimum grade of C- in ECON300 or (MATH241 and any statistics course). Restriction: Must be in Economics Bachelor of Science program.

Introduction to the use of statistics in economics. Topics include: Probability, random variables and their distributions, sampling theory, estimation, hypothesis testing, analysis of variance, regression analysis and correlation.

0101	Alka Gandhi MWF 12:00pm - 12:50pm	Seats (Total: 38) TYD 1118	

ECON325 **Intermediate Macroeconomic Analysis**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON200 and ECON201; and minimum grade of C- in ECON300 or (MATH241 and any statistics course). Restriction: Must be in Economics Bachelor of Science program. Credit only granted for: ECON305 or ECON325.

Analysis of macroeconomic behavior and policy with emphasis on theoretical rigor. Topics include the determinants of economic growth, unemployment, inflation, and international economic flows.

0101	Alka Gandhi MW 10:00am - 11:15am F 10:00am - 10:50am	Seats (Total: 30) TWS 0310 TWS 0310	 Discussion

0102	Alka Gandhi MW 10:00am - 11:15am F 11:00am - 11:50am	Seats (Total: 30) TWS 0310 TWS 0310	 Discussion

ECON326 **Intermediate Microeconomic Analysis**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON200 and ECON201; and minimum grade of C- in ECON300 or (MATH241 and any statistics course). Restriction: Must be in Economics Bachelor of Science program. Credit only granted for: ECON306, ECON326, or AREC326.

Analysis of economic decision-making by individuals and firms, the resulting market outcomes, and applications to real-world problems. Emphasis on analytical logic and theoretical rigor. Topics covered include consumer preferences and utility maximization, perfect competition and market power, uncertainty and risk, externalities, and asymmetric information.

0101	Nick Montgomery MW 2:00pm - 3:15pm F 10:00am - 10:50am	Seats (Total: 30) TWS 0310 TYD 2109	 Discussion
0102	Nick Montgomery MW 2:00pm - 3:15pm F 11:00am - 11:50am	Seats (Total: 30) TWS 0310 TYD 2109	 Discussion

ECON330 **Money and Banking**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON200 and ECON201.

The structure of financial institutions and their role in the provision of money and near money. Analysis of the Federal Reserve System, the techniques of central banks, and the control of supply of financial assets in stabilization policy. Relationship of money and credit to economic activity and the price level.

0101	Thomas Drechsel MW 9:30am - 10:45am	Seats (Total: 250) ARC 0204	

ECON340 **International Economics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Credit only granted for: ECON340 or ECON441.

Introduces economic models of international trade and finance. Analyzes policies designed to promote and restrict international trade and to manage exchange rates and impact international capital flows.

Contact department for information to register for this course.

ECON358E **Special Topics in Study Abroad III; Environmental Economics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ECON358T **Special Topics in Study Abroad III; Behavior and Incentives in Economics: The Case of Soccer**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ECON386 **Experiential Learning**

(Perm req)

Credits: 3 Grading Method: Sat-Fail

Prerequisite: ECON201 and ECON200. Restriction: Permission of BSOS-Economics department; and must be in a major within the BSOS-Economics department; and minimum cumulative GPA of 2.5; and junior standing or higher.

See Department Advising Office for course eligibility, course requirements, and application information.

Student and internship eligibility requirements, along with the ECON386 application, can be found at: http://ter.ps/ECON386.

Contact department for information to register for this course.

ECON387 **Career Preparation for Economics Majors**

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: 1 course with a minimum grade of C- from (ECON305, ECON325); and 1 course with a minimum grade of C- from (ECON306, ECON326). Restriction: Must be in one of the following programs (Economics Bachelor of Arts; Economics Bachelor of Science) ; and must have earned a minimum of 60 credits. Additional information: This course is intended for juniors or first semester seniors who are beginning their job search. Students who have already secured an employment opportunity for after graduation should not register.

Increase student knowledge of career paths, job search tools, and strategies for successfully obtaining a job with a BA or BS in economics. Students will engage in a range of different activities which build their understanding of job opportunities in economics and hone their abilities to find positions they want. Students will reflect on specific skills employers seek from economics graduates and incorporate that knowledge in their own individual job search and career plan.

0101	Stefania Scandizzo **Meets January 24, 2022 - March 11, 2022** F 12:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 20) TYD 0111 ONLINE	 Discussion
0201	Stefania Scandizzo **Meets March 21, 2022 - May 10, 2022** F 12:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 20) TYD 0111 ONLINE	 Discussion

ECON397 **Honors Thesis**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ECON396. Restriction: Must be a candidate for honors in economics.

General supervision will be provided through assembled meetings with the professor in charge of the course.

0101	Nuno Limao TuTh 9:30am - 10:45am	Seats (Total: 15) TYD 2109

ECON398E **Topics in Economics; Environmental Economics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This course is designed to meet the changing interests of students and staff. Topics vary in response to those interests. Students are advised to seek information about the coverage and prerequisites during the registration period.

Credit granted for only one of the following: ECON381,ECON398E, or ECON481.

Contact department for information to register for this course.

ECON398H **Topics in Economics; UK Economy & Financial Systems**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This course is designed to meet the changing interests of students and staff. Topics vary in response to those interests. Students are advised to seek information about the coverage and prerequisites during the registration period.

Contact department for information to register for this course.

ECON398K **Topics in Economics; Competitive Market Structures**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This course is designed to meet the changing interests of students and staff. Topics vary in response to those interests. Students are advised to seek information about the coverage and prerequisites during the registration period.

Prerequisite: ECON200.

Contact department for information to register for this course.

ECON398L **Topics in Economics; The British Economy and Financial System**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This course is designed to meet the changing interests of students and staff. Topics vary in response to those interests. Students are advised to seek information about the coverage and prerequisites during the registration period.

Contact department for information to register for this course.

ECON398M **Topics in Economics; Economics of Employment**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This course is designed to meet the changing interests of students and staff. Topics vary in response to those interests. Students are advised to seek information about the coverage and prerequisites during the registration period.

Prerequisites: ECON200 and ECON201.

Contact department for information to register for this course.

ECON398Z **Topics in Economics; Business Economics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

This course is designed to meet the changing interests of students and staff. Topics vary in response to those interests. Students are advised to seek information about the coverage and prerequisites during the registration period.

Contact department for information to register for this course.

ECON399 **Independent Study in Economics**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

Integrated readings and independent study under direction and supervision of a faculty member. Contact department for additional information.

Permission of instructor must be arranged in advance. Open only to students who have previously earned 6 or more credits in upper division economics courses.

Contact department for information to register for this course.

ECON399M **Independent Study in Economics; Economy and Society**

Credits: 1-3

Grading Method: Regular, Pass-Fail

Integrated readings and independent study under direction and supervision of a faculty member. Contact department for additional information.

Contact department for information to register for this course.

ECON402 **Macroeconomic Models and Forecasting**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON305, ECON325); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program.

Analysis of the fluctuations in economic activity and the formulation and use of forecasting models of the economy. Illustrations of computer macro models and forecasting problems.

0101	Alessandra Palazzo	Seats (Total: 35)
	MW 3:30pm - 4:45pm	TYD 2102

ECON406 **Advanced Microeconomics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON326; and 1 course with a minimum grade of C- from (ECON321, STAT401). Restriction: Must be in Economics Bachelor of Science program.

Expands on the assumptions of rational decision-making used in intermediate microeconomics and develops more complicated, more realistic models which address uncertainty, intertemporal choices, strategic interactions, social preferences and considerations of what is fair.

0101	Yusuf Masatlioglu	Seats (Total: 38)
	TuTh 11:00am - 12:15pm	TYD 1101

ECON407 Advanced Macroeconomics

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON325; and 1 course with a minimum grade of C- from (ECON321, STAT401). Restriction: Must be in Economics Bachelor of Science program.

An in-depth analysis of current issues in macroeconomic theory and policy. Topics covered include: 1. alternative perspectives on macroeconomics including monetarism, new classical equilibrium models, rational expectations, and real business cycle models; 2. long term growth, the slowdown in productivity growth, and concerns about U.S. competitiveness; 3. the effectiveness of macroeconomic policy in an open economy; 4. the effects of finance on the real sector.

0101	Martina Copelman	Seats (Total: 38)
	TuTh 3:30pm - 4:45pm	TYD 2109

ECON410 Comparative Economic Institutions

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON325 and ECON326; and 1 course with a minimum grade of C- from (ECON321, STAT401). Restriction: Must be in Economics Bachelor of Science program.

Institutions are the sets of rules that constrain the decisions and interactions of economic agents. The course uses economic analysis to understand both formal institutions (e.g. laws) and informal institutions (e.g. cultural norms). Practical examples are drawn from economics, law, and politics, and reflect the experience of many different countries.

0101	Peter Murrell	Seats (Total: 20)
	MW 11:00am - 12:15pm	TYD 0111

ECON414 Game Theory

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321, STAT400). Restriction: Must be in one of the following programs (Economics Bachelor of Arts; Economics Bachelor of Science). Credit only granted for: CMSC474, ECON414, GVPT399A or GVPT390.

Studies the competitive and cooperative behavior that results when several parties find that their individual outcomes are jointly determined. Students will learn how to use game theory to analyze situations of potential conflict. Applications are drawn from economics, business, and political science.

0101	Erika Domotor	Seats (Total: 38)
	TuTh 2:00pm - 3:15pm	TYD 2102

ECON416 Analysis of Economic Development

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON325, ECON326, and ECON422. Restriction: Must be in Economics Bachelor of Science program. Credit only granted for: ECON315 or ECON416.

Analysis of the determinants and influences on economic development. Emphasis on both theoretical models and econometric methods of explaining why some countries are poor, along with examination of policies to promote development.

0101	Sebastian Galiani	Seats (Total: 38)
	MW 2:00pm - 3:15pm	TYD 1114

ECON417 Estimating Policy and Program Impact

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326) and 1 course with a minimum grade of C- from (ECON424, ECON422). Restriction: Must be in one of the following programs (Economics Bachelor of Arts; Economics Bachelor of Science).

Governments, businesses, non-profits, funders, and other organizations must allocate scarce resources between competing uses. Understanding the causal effect of policies, programs or investments on key outcomes can guide the choices of these decision-makers. Correlations between policies and outcomes or changes in outcomes after new policies are adopted are rarely sufficient for estimating the causal effect, however. This course focuses on econometric strategies for obtaining unbiased causal estimates, including experimental methods, instrumental variables, regression discontinuity, and differences-in-differences. There will be an emphasis on using Stata and on interpreting the results of econometric analysis

0101	Jessica Goldberg MW 2:00pm - 3:15pm	Seats (Total: 38) TYD 2102

ECON418C **Economic Development of Selected Areas; China**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Economic and institutional characteristics of a specific geographic area are identified and discussed, and alternate strategies and policies for development are analyzed.

Prerequisites: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program (22040). Credit only granted for ECON418C or AREC447. An introductory survey course of economic development in China with emphasis on understanding the process of economic reform in mainland China since 1978.

0101	Jing Cai TuTh 11:00am - 12:15pm	Seats (Total: 50) SYM 0200

ECON422 **Econometrics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON325, ECON326); and 1 course with a minimum grade of C- from (ECON321, STAT401). Restriction: Must be in Economics Bachelor of Science program. Credit only granted for: ECON422, ECON424, or AREC422.

Emphasizes the interaction between economic problems and the assumptions employed in statistical theory. Formulation, estimation, and testing of economic models, including single variable and multiple variable regression techniques, theory of identification, and issues relating to inference.

0101	Alka Gandhi MWF 1:00pm - 1:50pm	Seats (Total: 38) TYD 1118
0201	Maureen Cropper MW 5:00pm - 6:15pm	Seats (Total: 38) TYD 2102

ECON423 **Advanced Topics in Econometrics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON422. Restriction: Must be in Economics Bachelor of Science program.

Interaction between economic problems and specification and estimation of econometric models. Topics may include: autocorrelation, heteroscedasticity, functional form, simultaneous equation models, logit and probit models, instrumental variables, qualitative choice models, and other computational methods.

0101	John Chao TuTh 9:30am - 10:45am	Seats (Total: 38) TYD 2102

ECON424 **Applied Econometrics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON305, ECON306, ECON325, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program. Credit only granted for: ECON422, ECON424 or AREC422.

Provide the knowledge and skills necessary to accomplish and utilize basic applied econometric analysis utilized by many business service providers, government agencies, and nonprofits engaged in policy analysis. Topics include simple and multiple regressions using cross section, time series, and panel data, issues of heteroskedasticity, serial correlation, and multicollinearity, models with binary dependent variable, and program evaluation. Course emphasizes application of knowledge using software packages but still covers essential theoretical background.

0101	Hossein Abbasi TuTh 11:00am - 12:15pm	Seats (Total: 38) TYD 2102
0201	Hossein Abbasi TuTh 12:30pm - 1:45pm	Seats (Total: 38) TYD 2102

ECON426 **Economics of Cost-Benefit Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON305, ECON306, ECON325, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program.

Study of how to use cost benefit analysis and other similar tools of applied microeconomics to conduct policy analyses. Cost-benefit analysis is an empirical method of identifying an optimal choice from a set of policy alternatives, where optimal is defined in terms of economic efficiency. Real world examples are addressed, so that students understand limitations of the methods and also interactions of economic analysis with political and administrative processes.

0101	Shuqing Chen MW 5:00pm - 6:15pm	Seats (Total: 27) TYD 2111

ECON427 **Experimental Economics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON326; and 1 course with a minimum grade of C- from (ECON321, STAT401). Restriction: Must be in Economics Bachelor of Science program.

An introduction to the methodology of experimental economics and its application to issues such as decision-making under uncertainty, auctions, and public goods. Also an introduction to behavioral economics as a relatively new area of economic research.

0101	Emel Filiz Ozbay TuTh 2:00pm - 3:15pm	Seats (Total: 30) TYD 2109

ECON433 **Economics of Big Data**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON326 and 1 course with a minimum grade of C- from (ECON321, STAT401). Restriction: Must be in Economics Bachelor of Science program.

The importance of big data in the global economy is rising. Students will explore the definition and characteristics of big data, the impact of big data on individuals, use of big data by firms, entrepreneurs and non-profits, as well as how big data reshapes various public policies.

0101	Ginger Jin MW 2:00pm - 3:15pm	Seats (Total: 38) TYD 2111

ECON441 **Theory of International Economics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON326 and ECON325. Restriction: Must be in a major within the BSOS-Economics department; and must not have completed ECON340, ECON442, or ECON443. Credit only granted for: ECON340, ECON441, ECON442, or ECON443.

Theoretical treatment of international trade and international finance. Includes Ricardian and Heckscher-Ohlin theories of comparative advantage, analysis of tariffs and other trade barriers, international factor mobility, balance of payments adjustments, exchange rate determination, and fiscal and monetary policy in an open economy.

Contact department for information to register for this course.

ECON442 **Globalization and Capital Markets**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON326 and ECON325; and 1 course with a minimum grade of C- from (ECON321, STAT401). Restriction: Must be in Economics Bachelor of Science program; and must not have completed ECON441. Credit only granted for: ECON441 or ECON442.

Uses models of open-economy macroeconomics to explain the causes and consequences of international capital flows. Analysis is made of private consumption, investment, the government sector, current accounts, the labor market, and the money and foreign exchange markets in small open economies. This framework is then used to study examples of how speculative attacks on currencies, sudden reversals of capital inflows, and the effects of the lack of credibility of economic policy affect economic development.

0101	Sebnem Kalemli-Ozcan W 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 38) TYD 0111 ONLINE

ECON443 **International Trade and Trade Policy in the New Global Economy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON305, ECON325); and 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program; and must not have completed ECON441. Credit only granted for: ECON441 or ECON443.

Examines the economics of international economic integration, including the theory of customs unions and free trade areas, the role of GATT and the WTO, changes in individual countries' foreign trade policies during the new era of globalization, the special role of multinational firms in world trade, and recent controversies about the benefits and costs of globalized trade.

0101	Stefania Scandizzo MWF 10:00am - 10:50am	Seats (Total: 38) TYD 0101
0201	Stefania Scandizzo MWF 11:00am - 11:50am	Seats (Total: 38) TYD 0101

ECON451 **Public Choice**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program.

Analysis of collective decision making, economic models of government, program budgeting, and policy implementation; emphasis on models of public choice and institutions which affect decision making.

0101	Peter Coughlin MWF 12:00pm - 12:50pm	Seats (Total: 38) TYD 1114
0201	Peter Coughlin MWF 1:00pm - 1:50pm	Seats (Total: 38) TYD 1114

ECON455 **Economics of Education Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program. Credit only granted for: ECON468E or ECON455. Formerly: ECON468E.

Examines the role that government plays in providing and financing education. Analyzes why people invest in education. Considers the effects of education on long-term social and economic outcomes, the behavior of institutions that produce education, and how to design and implement public policies affecting the level and distribution of educational resources. Uses microeconomic models and empirical findings to analyze current issues in education policy.

0101	Nolan Pope MW 11:00am - 12:15pm	Seats (Total: 38) TYD 2102

ECON456 **Law and Economics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program.

Relationship of the exchange process to the system of institutions and rules that society develops to carry out economic transactions. Topics covered include: Property rights; torts, negligence, and liability; contracts and exchanges; criminal control and enforcement; equity and efficiency issues .

0101	Aaron Finkle MW 3:30pm - 4:45pm	Seats (Total: 80) TYD 0117

ECON458Q **Special Topics in Study Abroad IV; State and Economy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ECON460 **Industrial Organization**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON326; and 1 course with a minimum grade of C- from (ECON321, STAT401). Restriction: Must be in Economics Bachelor of Science program.

Examines different theoretical models of firm behavior in markets with varying amounts of market power. Relates theory to specific industries and examines how market structure evolves over time.

Contact department for information to register for this course.

ECON461 **Economics of Regulation and Anti-trust**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program.

Considers government intervention in economic activity of three types: antitrust policy, regulation of natural monopolies, and health safety regulation. Covers theoretical models, real-world policy applications, and empirical studies relevant to the impact of regulation.

0101	Andrew Sweeting	Seats (Total: 38)
	MW 9:30am - 10:45am	TYD 2102

ECON463 **Economics of Sports**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321, STAT400). Restriction: Must be in Economics Bachelor of Arts program.

The application of theoretical and empirical economic tools to the sports industry, including competition at professional,collegiate, and international levels. Microeconomic models from labor, industrial organization and public finance will be applied to the sports industry and combined with data from sports markets, providing students with opportunities to produce and interpret economic analysis. The topic of discrimination will also be explored in the context of this particular economic activity.

0101	Nick Montgomery MW 9:30am - 10:45am	Seats (Total: 25) TYD 2109
	The final component of this section will have a strong focus on the economics of collegiate sports and the emerging financial opportunities for college athletes.	
0201	Nick Montgomery MW 11:00am - 12:15pm	Seats (Total: 25) TYD 2109
	The final component of this section will have a strong focus on the economics of emerging professional sports leagues, both historically and currently, such as for women s sports and men s lacrosse.	

ECON470 **Labor Economics: Theory and Evidence**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, STAT400, ECON321). Restriction: Must be in one of the following programs (Economics Bachelor of Arts; Economics Bachelor of Science). Credit only granted for: ECON470 or ECON471.

Analysis of labor markets in theory and the real world. Topics include labor supply, labor demand, human capital, performance incentives, unemployment, discrimination, and immigration. Students will develop an understanding of how formal economic research is used to analyze U.S. labor markets and how research influences policy debates.

Contact department for information to register for this course.

ECON481 **Environmental Economics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (AREC326, ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, ECON321, BMGT230). Restriction: Must be in one of the following programs (Agricultural and Resource Economics; Agricultural and Resource Economics: Agribusiness; Environmental Science & Policy-Env Economics; Agricultural and Resource Economics: Environmental and Resource Economics; Economics Bachelor of Arts program). Cross-listed with: AREC481. Credit only granted for: ECON481 or AREC481.

An exploration of the use of economic incentives for protection of the environment and the determination of appropriate (or efficient) level of environmental quality. Also covers the choice of policy instruments for the attainment of environmental standards.

0101	Roberton Williams	Seats (Total: 80)
	TuTh 2:00pm - 3:15pm	SYM 0200

ECON484 **The Economics of Climate Change**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (AREC326, ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, ECON321, BMGT230). Cross-listed with: AREC454. Credit only granted for: AREC454 or ECON484.

The role of economics in the formation of climate policy; basic concepts of environmental economics including efficiency, externalities, and policy instruments; economic models of intertemporal decisions and decision making in the face of uncertainty. Applied economic analysis of specific issues and current policy initiatives.

To review the ECON course list to determine how this course will count towards your major, click here.

0101	Anna Alberini	Seats (Total: 60)
	MW 2:00pm - 3:15pm	PLS 1140

ECON486 **Energy and Environmental Economics**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: 1 course with a minimum grade of C- from (AREC326, ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, ECON321, BMGT230). Cross-listed with: AREC456. Credit only granted for: AREC456 or ECON486.

Economic theory and empirical methods are used to study problems of energy, the environment, and the economy. It examines the extraction, production, and use of energy and market institutions and regulatory approaches used to correct market failures. Topics covered include: oil and natural gas markets, management and design of electricity markets, renewable energy, non-market valuation , climate change, and transportation policies.

To review the ECON course list to determine how this course will count towards your major, click here.

0101	Joshua Linn	Seats (Total: 80)
	TuTh 12:30pm - 1:45pm	SYM 0200

ECON499 **Independent Research in Economics**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

Directed research under the supervision of a faculty member. Contact department for additional information.

Contact department for information to register for this course.

ECON602 **Macroeconomic Analysis II**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: ECON601; or permission of BSOS-Economics department.

Further issues regarding macroeconomic topics. First half emphasis will be placed on dynamic macroeconomic theory as pertaining to monetary issues, policy ineffectiveness and effectiveness. The second half of the course will focus on theories of investment and growth.

0101	John Haltiwanger, Sadik Aruoba	Seats (Total: 48)	
	MW 9:30am - 10:45am	TYD 1101	
	M 5:00pm - 6:45pm	TYD 1101	Discussion

ECON604 **Microeconomic Analysis II**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: ECON603. Restriction: Permission of BSOS-Economics department.

Analysis of markets and market equilibria; the Arrow-Debreu model of general equilibrium, the two-sector model, welfare theorems, externalities, public goods, markets with incomplete and asymmetric information.

0101	Erkut Ozbay, Daniel Vincent	Seats (Total: 45)	
	TuTh 2:00pm - 3:15pm	TYD 0117	
	Tu 5:15pm - 6:45pm	TYD 1114	Discussion

ECON613 **Origins and Development of Capitalism**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Institutions and technology shaping pre-capitalist economies: Archaic, Greek and Roman, Feudal, and Mercantile. Rise of the market system, national economies, and capitalism. The nature of industrial society. Imperialism.

0101	John Wallis TuTh 2:00pm - 3:15pm	Seats (Total: 20) TYD 0101	

ECON615 **Development Economics I**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON603; or permission of BSOS-Economics department.

Explore both the causes and consequences in development economics from a historical and scientific approach. Presents theoretical models and applied work that test alternative hypotheses. Explore models of economic growth and institutions, with emphasis on property rights and political regimes as causal factors affecting development. Discuss empirical methods widely used in the field and important related topics including poverty, inequality, education and health.

0101	Sebastian Galiani MW 9:30am - 10:45am	Seats (Total: 15) TYD 1114	

ECON624 **Econometrics II**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON623; or permission of BSOS-Economics department.

A continuation of ECON623. Topics include: Nonlinear models and nonlinear estimation methods (generalized method of moments and maximum likelihood estimation), panel data models, univariate dynamic models, multivariate dynamic models including simultaneous equation models, and non-parametric/semiparametric estimation methods. The course will also provide instructions on the use of a major statistical package such as Stata or TSP.

0101	John Chao, Ingmar Prucha TuTh 12:30pm - 1:45pm Th 5:30pm - 7:15pm	Seats (Total: 30) TYD 0101 ASY 3207	 Discussion

ECON636 **Behavioral Economics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON603 and ECON604; and permission of BSOS-Economics department.

An exploration of how people make decisions, questioning the concept of "perfect rationality" in the standard economic theory, providing improved models in line with the observed biases of decision makers. Focusing on decision making under risk and ambiguity, endowment effect, status quo bias, loss aversion, intertemporal choice, and selfish and pro-social preferences.

0101	Emel Filiz Ozbay	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	TYD 0101

ECON641 **Microeconomic Analysis**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in M.Prof.Studies: Applied Economics program; or permission of BSOS-Economics department. Credit only granted for: ECON641 or ECON506. Formerly: ECON506.

Microeconomic analysis applied to public policy problems with an emphasis on practical examples and how they illustrate microeconomic theories. Policy issues such as pollution, welfare and income distribution, market design, industry regulation, price controls, tax policy and health insurance are practical examples used to illustrate the abstract principles of microeconomics.

PR01	Lucas Goodman	Seats (Total: 23)	
	Meets February 28, 2022 - May 18, 2022		
	Tu 6:45pm - 9:30pm	Location: TBA	
	Class time/details on ELMs	ONLINE	Discussion

Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact oes@umd.edu. This blended section will be mostly in-person, with weekly in-person meetings at the noted times and online discussions. The weekly class meetings will be at 1400 16th Street, NW in Washington, DC. The online requirements will include mandatory weekly online discussions. Some additional online content may be required.

ECON643 **Empirical Analysis I: Foundations of Empirical Research**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: ECON643 or ECON521. Formerly: ECON521.

Fundamental aspects of data management and interpretation emphasizing sampling, descriptive statistics, index numbers and construction of aggregated variables. Students will learn probability theory, confidence intervals, hypothesis testing and regression analysis using the EXCEL spreadsheet program and STATA statistical software.

PR01	Jon Silverman	Seats (Total: 23)	
	Meets February 28, 2022 - May 18, 2022		
	W 6:45pm - 9:30pm Class time/details on ELMs	Location: TBA ONLINE	Discussion
	Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact oes@umd.edu. This blended section will be mostly in-person, with weekly in-person meetings at the noted times and online discussions. The weekly class meetings will be at 1400 16th Street, NW in Washington, DC. The online requirements will include mandatory weekly online discussions. Some additional online content may be required.		

ECON644 **Empirical Analysis II: Introduction to Economic Models**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON643.

An introduction to econometric methods with applications to public policy analysis. Primary focus on application and interpretation of multiple regression analysis.

PCE1	Hossein Abbasi	Seats (Total: 16)	
	M 6:30pm - 9:15pm	TYD 2111	
	Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact oes@umd.edu.		
PCE2	Thomas Hegland	Seats (Total: 16)	
	Th 6:30pm - 9:15pm	KEY 0123	
	Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact oes@umd.edu.		

ECON645 **Empirical Analysis III: Econometric Modeling and Forecasting**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON644. Credit only granted for: ECON645 or ECON523. Formerly: ECON523.

Study of empirical techniques that are particularly relevant to the analysis of microeconomic models. Emphasis is on advanced panel data methods, time series regressions, instrumental variables, limited dependent variables, and sample selection corrections.

PR01	Moises Yi	Seats (Total: 23)	
	Meets February 28, 2022 - May 18, 2022		
	M 6:45pm - 9:30pm Class time/details on ELMs	Location: TBA ONLINE	Discussion
	Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact oes@umd.edu. This blended section will be mostly in-person, with weekly in-person meetings at the noted times and online discussions. The weekly class meetings will be at 1400 16th Street, NW in Washington, DC. The online requirements will include mandatory weekly online discussions. Some additional online content may be required.		
PR02	Ye Zhang	Seats (Total: 23)	
	Meets February 28, 2022 - May 18, 2022		
	M 6:45pm - 9:30pm Class time/details on ELMs	ONLINE ONLINE	Discussion
	Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact oes@umd.edu. This section will be mostly online, with weekly synchronous online meetings that occur within the noted timeframe. However, students are required to attend in-person proctored exams (midterm and final exam). The exams are the only in-person component of the course, and will be administered at 1400 16th Street, NW in Washington, DC.		

ECON662 **Theories of Industrial Organization**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON604 and ECON603.

Dynamic models are important tools to understand intertemporal individual choices and industry evolution. The course discusses a number of issues estimating and solving dynamic models, complimenting and building on the methods and topics introduced in 625. The course also covers models of endogenous product choice, matching and market design. There will be two main sets of assignments, where students simulate data by solving models, estimate models based on simulated or real data and perform counterfactual analyses. The students will also be expected to submit a research proposal.

0101	Chenyu Yang	Seats (Total: 20)	
	F 2:00pm - 4:45pm	TYD 3100	

ECON670 **Financial Economics**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON641; and must have completed or be concurrently enrolled in ECON644. Restriction: Must be in M.Prof.Studies: Applied Economics program.

The course applies microeconomic theory and applied econometric techniques to the study of financial institutions and markets for financial assets. Students will learn how economists model and estimate the value of financial assets. The economic and empirical models are of interest to public policy makers and private wealth managers. Specific topics can include financial intermediation, the regulation of financial institutions, risk management, portfolio theory, the capital asset pricing model and the efficient markets hypothesis.

PCE1	Joonkyu Choi	Seats (Total: 27)
	Tu 6:30pm - 9:15pm	TYD 2102
	Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact oes@umd.edu.	
PR01	Ilknur Zer Boudet	Seats (Total: 23)
	Meets February 28, 2022 - May 18, 2022	
	W 6:45pm - 9:30pm	ONLINE
	Class time/details on ELMs	ONLINE
	Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact oes@umd.edu. This section will be mostly online, with weekly synchronous online meetings that occur within the noted timeframe. However, students are required to attend in-person proctored exams (midterm and final exam). The exams are the only in-person component of the course, and will be administered at 1400 16th Street, NW in Washington, DC.	

ECON672 **Program Analysis and Evaluation**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON641 and ECON645.

Students study the tools used to evaluate the effectiveness of public policies. All evaluations have weaknesses, and some have more weaknesses than others. You will learn how to distinguish high from low quality evaluations. We will discuss the basic economics and econometrics of program evaluation, focusing on the application of methods used for causal inference and cost-benefit analyses in public policy contexts. We will examine published evaluation research with the intent of showing how the research does or does not lead to clear conclusions regarding program performance.

PCE1	Misty Heggeness	Seats (Total: 27)
	M 6:30pm - 9:15pm	TYD 2102
	Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact oes@umd.edu.	

ECON673 **Information, Game Theory and Market Design**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON641; and must have completed or be concurrently enrolled in ECON644.

A study of the strategic decision-making and the theory and practice of market design. Focus is on the design of organized market and incentives created by market rules. Topics include online auction markets, government auctions procurement auctions and matching markets. The analysis includes documenting the rules of real-world markets, game theoretic analysis, empirical analysis, and experimental work.

PCE1	David Ovadia	Seats (Total: 27)	
	Th 6:30pm - 9:15pm	TYD 0111	
	Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact oes@umd.edu.		
PR01	Justin Grana	Seats (Total: 23)	
	Meets February 28, 2022 - May 18, 2022		
	Tu 6:45pm - 9:30pm Class time/details on ELMs	Location: TBA ONLINE	Discussion
	Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact oes@umd.edu. This blended section will be mostly in-person, with weekly in-person meetings at the noted times and online discussions. The weekly class meetings will be at 1400 16th Street, NW in Washington, DC. The online requirements will include mandatory weekly online discussions. Some additional online content may be required.		

ECON674 **Economic Analysis of Law**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON641; and must have completed or be concurrently enrolled in ECON644.

A study of the application of economics to law with a focus on game theory, strategic behavior and public policy.

PR01	David Burk	Seats (Total: 23)
	Meets February 28, 2022 - May 18, 2022	
	Th 6:45pm - 9:30pm Class time/details on ELMs	Location: TBA ONLINE
	Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact oes@umd.edu. This blended section will be mostly in-person, with weekly in-person meetings at the noted times and online discussions. The weekly class meetings will be at 1400 16th Street, NW in Washington, DC. The online requirements will include mandatory weekly online discussions. Some additional online content may be required.	

ECON676 **Economic Development**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON641; and ECON642; and must have completed or be concurrently enrolled in ECON644. Restriction: Must be in M.Prof.Studies: Applied Economics program.

Analysis of economic development. The course will focus on the consequences of poverty and poor institutions for the behavior and welfare of individuals, households, firms and the aggregate economy in developing countries. Theoretical models and empirical evidence will be used to understand the intended and unintended consequences of policies designed to enhance economic development.

PR01	Steven Payson	Seats (Total: 23)	
	Meets February 28, 2022 - May 18, 2022		
	M 6:45pm - 9:30pm Class time/details on ELMs	Location: TBA ONLINE	Discussion
	Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact oes@umd.edu. This blended section will be mostly in-person, with weekly in-person meetings at the noted times and online discussions. The weekly class meetings will be at 1400 16th Street, NW in Washington, DC. The online requirements will include mandatory weekly online discussions. Some additional online content may be required.		

ECON677 **International Trade and Applications**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON641 and ECON644. Restriction: Must be in MS Applied Economics program; or with permission from the program director.

A mix of theory and empirical work. Students will analyze the causes and consequences of international trade. The course will cover a set of conceptual tools that are useful for understanding "globalization" and the usage of these tools to address interesting and important questions about how countries, firms, and workers respond to international trade.

PWE1	Francisco Roch	Seats (Total: 27)
	W 6:30pm - 9:15pm	ONLINE
	Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact oes@umd.edu. This section will be mostly online, with weekly synchronous online meetings that occur within the noted timeframe. However, students are required to attend in-person proctored exams (midterm and final exam). The exams are the only in-person component of the course, and will be administered on campus.	

ECON684 **Applied Time Series Analysis and Forecasting**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON642; and ECON645. Restriction: Must be in M.Prof.Studies: Applied Economics program.

This course builds on the brief introduction to time series econometrics offered in ECON 645. Students will learn the theory of stationary processes and how it applies to econometric techniques for estimation and forecasting based on time series data. The techniques will be applied in macroeconomic, financial and business applications.

PCE1	Martin Stuermer	Seats (Total: 27)
	Th 6:30pm - 9:15pm	TYD 2106
	Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact oes@umd.edu.	

ECON687 **Economics Applications of R Programming**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON645. Restriction: Must be in Applied Economics Master of Science program; or permission of the program director.

Builds on the data analysis and econometric skills learned in the Empirical analysis sequence of ECON 643, 644, and 645. The STATA skills acquired in that sequence, such as basic data manipulation and econometric estimation, will be extended to the R programming language. The fundamentals of more advanced scientific programming--objects, data structures, loops, functions, simulation, parallel computing--will be introduced with applications to economics and the social sciences. Additional emphasis is placed on good coding practices and tools for version control and collaboration such as Git and R Markdown.

PR01	Stephane Verani	Seats (Total: 23)	
	Meets February 28, 2022 - May 18, 2022		
	Th 6:45pm - 9:30pm	Location: TBA	
	Class time/details on ELMs	ONLINE	Discussion

Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact oes@umd.edu. This blended section will be mostly in-person, with weekly in-person meetings at the noted times and online discussions. The weekly class meetings will be at 1400 16th Street, NW in Washington, DC. The online requirements will include mandatory weekly online discussions. Some additional online content may be required.

ECON698M **Selected Topics in Economics; Macroeconomics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Thomas Drechsel	Seats (Total: 1)
	Contact instructor or department for details.	

ECON699 **Applied Economics Internship Experience; Applied Economics Internship Experience**

Credits: 1-3 Grading Method: Regular

Variable credit course for MS Applied Economics and Economic Analysis graduate certificate students participating in internships with well-established organizations and regular supervision from experienced professionals.

Contact department for information to register for this course.

ECON704 **Advanced Microeconomics II**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON604 and ECON603.

This is the second half of a two-semester sequence in Advanced Microeconomics, intended for second-year Ph.D. students. The course material varies from year-to-year, but currently it focuses on auction theory, matching theory, and the relationship between matching and auction theory. Other topics that are treated in some years include: sequential bargaining under incomplete information; and equilibrium refinements.

0101	Lawrence Ausubel	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	TYD 0102

ECON708 **Advanced Topics in Applied and Theoretical Microeconomics**

(Perm req)

Credits: 2 Grading Method: Sat-Fail, Audit

Read, discuss, and analyze current topics in microeconomics, including public economics, environmental economics, labor economics, industrial economics, microeconomic theory, public choice and international trade. Specific topics covered will change from semester to semester depending on the students' and faculty's interests. Intended primarily for students beginning thesis research in economics.

0101	Sergio Urzua	Seats (Total: 40)
	MW 12:30pm - 1:45pm	TYD 0111

ECON709 **Advanced Topics in Applied and Theoretical Macroeconomics**

(Perm req)

Credits: 2 Grading Method: Sat-Fail, Audit

Read, discuss, and analyze current topics in macroeconomics, including asset pricing models, models of economic growth, investment, and the labor market. Specific topics covered will change from semester to semester depending on the students' and faculty's interests. Intended primarily for students beginning thesis research in economics.

0101	John Shea	Seats (Total: 45)
	TuTh 12:30pm - 1:45pm	TYD 1108

ECON722 **Econometrics IV**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON624; or permission of BSOS-Economics department.

Oriented towards micro-econometric methods. Topics covered will be selected from the following: Further discussion of topics covered in ECON624, binary and multinomial response models, censored and truncated regression models, sample selection models, count data models, duration models program evaluation and treatment effects methods, structural econometrics, the identification problem, stratified and clustered samples, spatial/cross sectional dependence models, dynamic panel data models, weak instruments, non-parametric estimation, boot strap and Jack Knife methods, pre-test estimators.

0101	Ingmar Prucha, Guido Kuersteiner	Seats (Total: 20)
	TuTh 5:00pm - 7:30pm	TYD 0102

ECON743 **Topics in International Finance**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON602; or permission of BSOS-Economics department. Recommended: ECON741.

Puzzles in international finance; portfolio balance, current account dynamics, exchange rate behavior; capital market imperfections; balance of payments crises.

0101	Sebnem Kalemli-Ozcan	Seats (Total: 20)
	W 5:00pm - 7:30pm	TYD 0101

ECON745 **Advanced Topics in International Trade**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON604 and ECON624. Credit only granted for: ECON698L or ECON745. Formerly: ECON698L.

Designed primarily for students planning to write dissertations on a topic related to international trade. Its focus is on recent research in this field including tests of trade theories; the effects of trade on growth and knowledge diffusion; the political economy of trade policy and the theory and practice of trade agreements.

0101	Eunhee Lee	Seats (Total: 20)
	MW 9:30am - 10:45am	TYD 3100

ECON747 **The Macreconomics of Imperfect Capital Markets**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON602 and ECON601; or (ECON604 and ECON603); or permission of BSOS-Economics department. Restriction: Must be in one of the following programs (Economics (Master's); Economics (Doctoral)). Credit only granted for: ECON698K or ECON747. Formerly: ECON698K.

After a brief overview of the micro-foundations of capital market imperfections, topics include limited commitment, the financial accelerator, liquidity, bubbles, crises, the role of credit in monetary economics as well as international capital flows.

0101	Thomas Drechsel	Seats (Total: 15)
	MW 11:00am - 12:15pm	TYD 3100

ECON752 **Public Economics II**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON751.

Theoretical and empirical issues in taxation, with particular emphasis on income taxation.

0101	Melissa Kearney	Seats (Total: 20)
	TuTh 9:30am - 10:45am	TYD 0101

ECON756 **Empirical Political Economics**

Credits: 3 Grading Method: Regular, Audit

An introduction to empirical political economy. Determinants of individual political behavior and the impact of political rules on economic outcomes will both be analyzed. Modern applied econometric techniques will also be covered.

0101	Ethan Kaplan	Seats (Total: 20)
	MW 2:00pm - 3:15pm	TYD 3100

ECON772 **Population Economics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON771; or permission of BSOS-Economics department.

Covers the central ideas in population economics. These include theory and test of theories of mortality, fertility and immigration.

0101	Nolan Pope MW 9:00am - 10:15am	Seats (Total: 20) TYD 1108

ECON781 **Valuing Environmental Benefits**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON603; and ECON623. Or students who have taken courses with comparable content may contact the department.

The theory and practice of valuing environmental benefits, including the health, recreation and aesthetic benefits associated with controlling air and water pollution, and the damages associated with climate change. Estimation of the benefits of energy efficiency improvements-including the benefits of fuel economy standards.

0101	Maureen Cropper MW 2:00pm - 3:15pm	Seats (Total: 20) TYD 0111

ECON799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ECON808 **Workshop on Macroeconomics, International Macroeconomics and International Finance**

(Perm req)

Credits: 2 Grading Method: Sat-Fail, Audit

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ECON graduate students only.

0101	Sadik Aruoba W 3:30pm - 6:00pm	Seats (Total: 40) TYD 0111

ECON828 **Workshop in Econometrics**

Credits: 2 Grading Method: Sat-Fail, Audit

Current research in econometrics. Topics drawn from theoretical and applied econometrics. Special topics include: maximum likelihood and generalized method of moments estimation of linear and non-linear models, analysis of stationary and non-stationary time series, cross section time series estimation, spatial estimation mehtods, Bayesian methods, semi-and non-parametic methods, rational expectations models, numerical methods, and various applications.

0101	John Chao M 3:30pm - 6:00pm	Seats (Total: 20) Location: TBA

ECON848 **Workshop in International Trade, Institutional Economics and Political Economy**

(Perm req)

Credits: 2 Grading Method: Sat-Fail, Audit

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ECON graduate students only.

0101	Peter Murrell M 3:30pm - 6:00pm	Seats (Total: 30) TYD 0111

ECON868 **Workshop in Industrial Organization, Microeconomic Theory and Behavioral and Experimental Economics**

(Perm req)

Credits: 2 Grading Method: Sat-Fail, Audit

Workshops designed to provide a structured environment for our faculty and graduate students to meet regularly to discuss and present their research ideas.

ECON graduate students only.

0101	Yusuf Masatlioglu Tu 3:30pm - 6:00pm	Seats (Total: 40) TYD 0101

ECON878 **Workshop in Development, Labor and Public Economics**

(Perm req)

Credits: 2 Grading Method: Sat-Fail, Audit

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ECON graduate students only.

0101	Jessica Goldberg Th 3:30pm - 6:00pm	Seats (Total: 40) TYD 0101

ECON898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Sat-Fail

Contact department for information to register for this course.

ECON899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

EDCP Education Counseling and Personnel Services Spring 2022

EDCP105 **Professional Development Leadership Diversity Seminar**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Restriction: Must be in the College Success Scholars Program; and permission of instructor. Credit only granted for: EDCP105 or EDCP108N. Formerly: EDCP108N.

An experiential and theoretical examination of how to successfully navigate through the job search, application process, interviews, and networking opportunities in a professional environment with an emphasis on inclusion and diversity issues

0101	Christopher Lester	Seats (Total: 50)
	W 6:00pm - 7:50pm	TYD 1101

EDCP108C **College and Career Advancement: Concepts and Skills; Choosing your Major and Career**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Knowledge and skills designed to enhance college as a learning experience or preparation for life.

Restricted to students with 60 credits or less. Figuring out what to study and work on is a hard problem, and one that you will be trying to solve multiple times in your life as you grow and evolve. The Choosing A Major and Career course is designed as a guided self-discovery experience where you learn more about yourself, the fields you are interested in, and the supporting tools and frameworks that you can come back to throughout your life.

0101	Sarah Wolek, Jessica Roffe	Seats (Total: 25)
	W 11:00am - 11:50am	ONLINE

EDCP108I **College and Career Advancement: Concepts and Skills; Academic Transitions to Internships**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Knowledge and skills designed to enhance college as a learning experience or preparation for life.

Restricted to students with less than 105 cumulative credits. Recommended for students who have never had an internship and are actively searching for one. Students participating in this course will engage in the full experience of searching for an internship. Course registration is closed to graduating seniors."

0101	Erin Callahan **Meets January 24, 2022 - March 11, 2022** Class time/details on ELMs	Seats (Total: 40) ONLINE
0201	Jenny Sak **Meets January 24, 2022 - March 11, 2022** Class time/details on ELMs	Seats (Total: 40) ONLINE
0301	Caroline Bodnar **Meets January 24, 2022 - March 11, 2022** Class time/details on ELMs *This section is restricted to College of Arts & Humanities Students only.*	Seats (Total: 30) ONLINE
0401	Erin Callahan **Meets March 21, 2022 - May 6, 2022** Class time/details on ELMs	Seats (Total: 40) ONLINE
0501	Erica Ely **Meets March 21, 2022 - May 6, 2022** Class time/details on ELMs	Seats (Total: 25) ONLINE
0601	Jeffrey Cho **Meets January 24, 2022 - March 11, 2022** Class time/details on ELMs *This section is restricted to CMNS students only.*	Seats (Total: 30) ONLINE

EDCP210 **Peer Counseling Skills and Mental Health Advocacy**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Restriction: Must not have completed EDCP310; and must not have completed PSYC433. Credit only granted for: EDCP210, EDCP310, or PSYC433.

Introduction to core helping skills in peer counseling settings and three predominant theoretical approaches used in the counseling field (humanistic, psychodynamic, cognitive-behavioral). The course also explores mental health stigma and advocacy. Students will build an understanding of the practical application of underlying principles and theory in counseling and the helping professions, while exploring their own, and societal, biases, assumptions, and attitudes toward mental health.

0101	Amber Pasha TuTh 10:15am - 11:30am	Seats (Total: 19) EDU 3236
0201	Stephanie Cerrato MW 2:15pm - 3:30pm	Seats (Total: 19) HBK 0302H
0301	Diksha Bali MW 1:00pm - 2:15pm	Seats (Total: 19) EDU 2101
0401	Shihong Lin MW 10:00am - 11:15am	Seats (Total: 19) EDU 2102
0501	Hailey Fleece TuTh 3:30pm - 4:45pm	Seats (Total: 19) PAC 1809
0601	Eunmyoung Lee TuTh 11:30am - 12:45pm	Seats (Total: 19) CHE 2136

EDCP230 **The Science and Practice of Happiness and Psychological Well-Being**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, DSSP

An introduction to theory and research on positive psychology, subjective well-being, and the psychology of happiness. This will include examination of hedonic and eudaimonic models of well-being and sociocultural understandings of happiness, together with how it relates to health, relationships, money, religion, work, and social media. Students will also explore common misconceptions and myths about happiness and well-being and will engage in a variety of activities designed to deepen their understanding of happiness in their own lives and broader societal trends related to well-being.

0101	Shereen Ashai TuTh 11:00am - 12:15pm	Seats (Total: 18) AJC 2119
0102	Emily Cygrymus MW 2:00pm - 3:15pm	Seats (Total: 18) WDS 1127

EDCP298 **Special Problems in Counseling and Personnel Services**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Individual instruction in special problems related to counseling, student leadership, and college student development.

Contact department for information to register for this course.

EDCP386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular

Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department; and sophomore standing or higher.

Special EDCP form required.

Contact department for information to register for this course.

EDCP489 **Field Experiences in Counseling and Personnel Services**

(Perm req)

Credits: 1-4 Grading Method: Regular General Education: DVUP

Planned field experience in education-related activities. Credit not to be granted for experiences accrued prior to registration.

Contact department for information to register for this course.

EDCP498 **Special Problems in Counseling and Personnel Services**

(Perm req)

Credits: 1-3 Grading Method: Regular

Available only to major students who have formal plans for individual study of approved problems.

Contact department for information to register for this course.

EDCP498B **Special Problems in Counseling and Personnel Services; From Africa to South America - The Afro-Brazilian Experience**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Available only to major students who have formal plans for individual study of approved problems.

Contact department for information to register for this course.

EDCP498T **Special Problems in Counseling and Personnel Services; Contextual Leadership-Teaching Assistant**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Available only to major students who have formal plans for individual study of approved problems.

0101	Amanda Dennis	Seats (Total: 30)
	Meets March 30, 2022 - May 4, 2022	
	W 5:00pm - 7:05pm	HJP 2242

EDCP612 **Multicultural Issues in Counseling and Personnel Services**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department.

Socio-psychological, philosophical, clinical, and research topics related to the provision of counseling and personnel services, academic support, and career development for minority students on predominantly white college and university campuses. Implications of race and/or national origin on opportunities for personal, social, academic, and career development in educational settings.

0101	Sylvia Huntley	Seats (Total: 15)
	W 4:15pm - 7:00pm	EDU 3233

EDCP614 **Counseling Skills: Introduction to Practicum**

Credits: 3 Grading Method: Regular, Audit

Corequisite: EDCP616.

Development and utilization of counseling skills.

0101	Roger Worthington	Seats (Total: 16)	
	Tu 1:00pm - 3:45pm	LEF 1171	
	Tu 4:00pm - 5:30pm	EDU 1315	Lab

EDCP621 **Practicum in School Counseling**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: EDCP616. Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department. Credit only granted for: EDCP619D or EDCP621. Formerly: EDCP619D.

Sequence of supervised counseling experiences of increasing complexity.

0101	Jessica McKechnie	Seats (Total: 12)
	M 4:15pm - 7:00pm	EDU 2102

0201	Jessica McKechnie M 7:00pm - 9:45pm	Seats (Total: 12) EDU 2102

EDCP625 **Counseling the Chemically Dependent**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in the School Counseling program; or permission of instructor.

Chemical dependency and its effects on the individual's personal, social, and work functioning. Counseling procedures for persons with drug and alcohol problems.

0101	Paul Gold W 4:15pm - 7:00pm	Seats (Total: 15) ONLINE

EDCP630 **School-Based Behavioral Interventions**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Permission of instructor; and must be in a major in EDUC-College of Education.

Behavior assessment and intervention techniques from behavioral, cognitive-behavioral, and ecological models. Planning, implementation, and evaluation of behavior change techniques.

0101	Annie Goldthrite W 4:15pm - 7:00pm	Seats (Total: 10) SQH 1125

EDCP633 **Diagnostic Appraisal of Children I**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: EDCP632.

Assessment of development, emotional and learning problems of children.

0101	Hedwig Teglasi Tu 9:45am - 12:30pm	Seats (Total: 10) ARC 1123

EDCP636 **School Consultation II**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDCP635. Restriction: Must be in the School Psychology program; or permission of instructor.

Didactic practicum in consultation services in the school setting. Case consultation and organizational consultation in the schools. Practicum experience.

0101	Colleen O'Neal	Seats (Total: 4)
	M 9:00am - 11:45am	ASY 3217

EDCP651 **Group Counseling in Schools**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: EDCP616; and for school counseling and school psychology students only. Restriction: Permission of instructor.

Issues and techniques of group counseling in schools.

0101	Richard Shin	Seats (Total: 10)
	Tu 4:15pm - 7:00pm	EDU 2101

EDCP680 **Basic Didactic Practicum in Counseling Psychology**

Credits: 3 Grading Method: Sat-Fail

Prerequisite: For Counseling Psychology majors only. Formerly: PSYC776.

In depth examination of counseling theories and techniques, and supervised experience in application of a range of counseling and therapy approaches.

0101	Delida Sanchez	Seats (Total: 8)
	Tu 12:00pm - 3:00pm	EDU 2102

EDCP691 **Research in Counseling Psychology II**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: For Counseling Psychology majors only. Cross-listed with PSYC691. Formerly: EDCP717.

Critical analysis of trends and issues in counseling psychology science.

0101	Robert Lent	Seats (Total: 10)
	Th 1:15pm - 4:00pm	WDS 1130

EDCP693 **Assessment in Counseling Psychology ii**

Credits: 3 Grading Method: Regular

Prerequisite: For Counseling Psychology majors only. Formerly: EDCP789F.

Supervised experience in administration, scoring, and interpreting major psychodiagnostic instruments used by counseling psychologists, as well as writing integrative assessment reports. Emphasis on hypothesis testing approach to assessment and on the counseling interview as an assessment tool.

0101	Jacob Priluck	Seats (Total: 20)
	Th 1:00pm - 4:00pm	EDU 2101

EDCP701 **Theories and Methods of Intervention**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in Counseling and Personnel Services (Doctoral) program; or permission of instructor. Credit only granted for: EDCP789B or EDCP701. Formerly: EDCP789B.

An in-depth review of different theories and methods related to psychological interventions for children and adolescents.

0101	Cixin Wang	Seats (Total: 10)
	M 9:45am - 12:30pm	EDU 3236

EDCP738 **Practicum in Child Assessment**

Credits: 3 Grading Method: Regular, Audit

Administration of complete test batteries to children; supervision of initial interviews; test administration and scoring; interpretation and synthesis of test battery and interview material; the psychological report; verbal interpretation of test results; and recommendations. Taken initially with EDCP 633; repeated with EDCP 634 in the subsequent semester.

Class meets in 1102M Seneca Building.

0101	Eleazar Eusebio	Seats (Total: 7)
	Tu 9:00am - 12:15pm	WDS 1131

EDCP742 **Examining College Environments and Outcomes**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDMS651; or permission of instructor. Credit only granted for: EDCP742 or EDCP789K. Formerly: EDCP789K.

Explores theory and research on the impact of the college environment on undergraduate student outcomes. Discusses environmental theory and assessment, college impact theory, outcomes assessment, and implications of the above for higher education and student affairs.

0101	Julie Park Th 9:00am - 11:45am	Seats (Total: 15) MTH 0304

EDCP750 **Therapeutic Approaches with Children**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in Counseling and Personnel Services (Doctoral) program; or permission of instructor. Credit only granted for: EDCP789N or EDCP750. Formerly: EDCP789N.

Theoretical and empirical underpinnings of the therapeutic process with children.

0101	Erin Jones Th 9:15am - 12:00pm	Seats (Total: 6) ATL 1106

EDCP776 **Social Justice in Student Affairs and Higher Education**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDCP771 or EDCP741; or permission of instructor. Restriction: Limited to college student personnel students only.

An exploration of differences, biases, assumptions, limitations, and challenge with diversity in the context of higher education and student affairs. Focusing on issues of inequities with social identity group membership and the systems of power, privilege, and oppression in society.

0101	Domonic Rollins M 4:30pm - 7:15pm Class time/details on ELMs	Seats (Total: 20) JMZ 2120 ONLINE

EDCP788 **Advanced Practicum**

Credits: 1-6 Grading Method: Regular, Audit

Individual supervision in one of the following areas: (a) individual counseling, (b) group counseling, (c) consultation, or (d) administration.

1101	Bridget Kelly Contact instructor or department for details.	Seats (Total: 2)
5001	John Zacker Contact instructor or department for details.	Seats (Total: 5)
5101	Candace Moore Contact instructor or department for details.	Seats (Total: 2)
7001	Julie Park Contact instructor or department for details.	Seats (Total: 1)
7301	Kimberly Griffin Contact instructor or department for details.	Seats (Total: 5)

EDCP788A **Advanced Practicum; Social Justice Practicum**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Individual supervision in one of the following areas: (a) individual counseling, (b) group counseling, (c) consultation, or (d) administration.

This course is designed to introduce students to social justice theories with the goal of developing systemic/macro level intervention and consultation skills. This course will prepare students with the awareness, knowledge, and skills necessary to serve as social justice advocates in their various roles (e.g., counselor, researcher, and educator) as counseling psychologists.

0101	Jioni Lewis W 1:00pm - 3:45pm	Seats (Total: 10) Location: TBA

EDCP789 **Advanced Topics in Counseling and Personnel Services**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

EDCP789R **Advanced Topics in Counseling and Personnel Services**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit, Sat-Fail

0101	Michelle Espino Contact instructor or department for details.	Seats (Total: 5)

EDCP797 **Capstone Course: Program Planning**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in the School Counseling program. Credit only granted for: EDCP789T or EDCP797. Formerly: EDCP789T.

0101	Jorinna Tran	Seats (Total: 15)
	Tu 4:00pm - 7:00pm	EDU 2102

EDCP798 **Special Problems in Counseling and Personnel Services**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Master's AGS, or doctoral candidates who desire to pursue special research problems under the direction of their advisers may register for credit under this number.

Contact department for information to register for this course.

EDCP799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Registration required to the extent of six hours for Master's thesis.

Contact department for information to register for this course.

EDCP870 **Professional Issues Seminar**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: EDCP656 or EDCP870. Formerly: EDCP656.

Examination of issues that bear on professional issues such as ethics, inter-professional relationships and research.

0101	Paul Gold	Seats (Total: 15)
	Th 4:15pm - 7:00pm	ONLINE

EDCP879 **Internship in School Counseling**

Credits: 5 Grading Method: Regular, Audit

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

0101	Jessica McKechnie M 7:15pm - 10:00pm M 4:15pm - 7:00pm	Seats (Total: 15) Location: TBA Location: TBA	 Lab

EDCP888 **Apprenticeship in Counseling and Personnel Services**

(Perm req)

Credits: 1-8 Grading Method: Regular, Audit

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

Contact department for information to register for this course.

EDCP888A **Apprenticeship in Counseling and Personnel Services; College Student Personnel**

Credits: 3 Grading Method: Regular, Audit

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

0101	Marsha Guenzler-Stevens Contact instructor or department for details.	Seats (Total: 10)
5101	Candace Moore Contact instructor or department for details.	Seats (Total: 1)
7001	Julie Park Contact instructor or department for details.	Seats (Total: 3)
7201	Michelle Espino Contact instructor or department for details.	Seats (Total: 10)

EDCP888C **Apprenticeship in Counseling and Personnel Services; School Psychology**

Credits: 1-8 Grading Method: Regular, Audit

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

0101	Colleen O'Neal W 1:00pm - 3:45pm	Seats (Total: 15) Location: TBA
0201	Hedwig Teglasi Tu 1:30pm - 4:30pm	Seats (Total: 15) WDS 1130
0401	Instructor: TBA Class time/details on ELMs	Seats (Total: 15) ONLINE
0501	Judith Kinney Class time/details on ELMs	Seats (Total: 10) ONLINE

EDCP888G **Apprenticeship in Counseling and Personnel Services**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

Contact department for information to register for this course.

EDCP889 **Internship in Counseling and Personnel Services; Internship in Counseling and Personnel Services**

Credits: 1-8 Grading Method: Regular, Audit

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Contact department for information to register for this course.

EDCP889C **Internship in Counseling and Personnel Services**

(Perm req)

Credits: 1-8 Grading Method: Regular, Audit

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

0101	Jioni Lewis Contact instructor or department for details.	Seats (Total: 10)

EDCP898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

EDCP899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Registration required to the extent of 12-18 hours for a Ph.D. Dissertation.

Contact department for information to register for this course.

EDHD Education, Human Development Spring 2022

EDHD200 **Paradigms and Perspectives in Human Development**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Must have 45 or fewer credits; or must be in the Human Development program or Human Development minor.

An introduction to the paradigms and perspectives that guide the study of human development across the lifespan in cognitive, social, physical and emotional domains. Topics of study include overlying principles, concepts, assumptions, theoretical frameworks, and research methods that influence ways in which development is conceptualized. The course is designed to provide insight into major questions of the day in human development and how these prevailing perspectives have evolved over time. This course will also help students understand how knowledge of theory and research is translated into practice in a variety of professional settings.

0101	Donald Bolger TuTh 2:00pm - 3:15pm	Seats (Total: 40) EDU 1121
0201	Lucas Butler Tu 12:30pm - 1:45pm Class time/details on ELMs *Restricted to students in the Human Development major and Human Development minor.*	Seats (Total: 40) EDU 1121 ONLINE
0301	Lucas Butler Tu 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 40) EDU 1121 ONLINE

EDHD201 **Learning How to Learn**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS

Immerses students in the theoretical and empirical study of learning by engaging them in orchestrated experiences and activities drawn directly from the disciplinary research. Students achieve deep understanding of their own learning, as well as the means of enhancing that learning both in school and out-of-school contexts.

0101	Patricia Alexander MW 11:00am - 11:50am M 12:00pm - 12:50pm	Seats (Total: 30) ESJ 2309 TWS 1106	Lab
0102	Patricia Alexander MW 11:00am - 11:50am W 12:00pm - 12:50pm	Seats (Total: 30) ESJ 2309 JMZ 2122	Lab
0201	Juliana Van Meerten TuTh 9:30am - 10:45am	Seats (Total: 30) IRB 2107	
0301	Juliana Van Meerten TuTh 11:00am - 12:15pm	Seats (Total: 30) PHY 4221	

EDHD210 **Foundations of Early Childhood Education**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: HO | General Education: DSHS

Restriction: Permission of EDUC-Human Development and Quantitative Methodology department.

Students explore historical and current research in early childhood education, primary models of curriculum and pedagogy in the field, and the relationship between critical aspects of young children's development and the creation of inclusive learning opportunities for all children, including children at risk. The concept of developmentally appropriate practice and its application across different developmental levels and early childhood classrooms will be introduced and connected with discussion in EDHD220 and EDSP211. Students examine issues in developing and implementing high quality early childhood education experiences for young children with and without disabilities, including the influence of family, culture, and community, the needs of children at risk (e.g., poverty, immigrant status, English Language Learners), and the role of assessment in early learning.

0101	Elisa Klein TuTh 12:30pm - 1:45pm	Seats (Total: 25) SQH 1105	

EDHD220 **Exploring Early Childhood General and Special Education**

(Perm req) Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSSP

Restriction: Permission of EDUC-Human Development and Quantitative Methodology department.

Students who are considering a career in education will consider information about the teaching profession. Students reflect on their personal strengths, identify areas of growth, and examine their predisposition to work with young children with and without disabilities. They will discuss the nature of teaching, the moral and philosophic underpinnings that influenced their decision to enter into the teaching professions, as well as the roles and responsibilities of teachers and the characteristics and qualities for effective teachers (teaching styles and teacher's primary role in the classroom).

Students should allow an appropriate amount of travel time from the off-campus experience to your classes meeting on campus.

0101	Francine Marchese W 5:00pm - 7:00pm M 8:30am - 12:30pm	Seats (Total: 7) JMZ 0125 Location: TBA	Lab
0102	Francine Marchese W 5:00pm - 7:00pm Tu 8:30am - 12:30pm	Seats (Total: 6) JMZ 0125 Location: TBA	Lab
0104	Francine Marchese W 5:00pm - 7:00pm Th 8:30am - 12:30pm	Seats (Total: 6) JMZ 0125 Location: TBA	Lab
0105	Francine Marchese W 5:00pm - 7:00pm F 8:30am - 12:30pm	Seats (Total: 6) JMZ 0125 Location: TBA	Lab

EDHD221 Aggression and Violence in Everyday Life: Can Violence Be Prevented?

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSHS, SCIS

History of aggression and violence in the world and in the United States. Examines the extent to which various forms are prevalent today and scientifically supported prevention strategies. Methods of studying aggression are reviewed, as are theories and methods of preventing aggression and violence.

0101	Lauren Trakhman Th 1:00pm - 3:45pm	Seats (Total: 50) ONLINE

EDHD228 Research Experiences in Human Development

(Perm req) Credits: 3 Grading Method: Regular General Education: DSSP

Provides students with hands-on participation in faculty-supervised laboratory research activities in the Department of Human Development & Quantitative Methodology. Students will learn about the purpose of scientific research and engage in activities that advance their knowledge and skills with regard to its ethical practice.

Contact department for information to register for this course.

EDHD230 Human Development and Societal Institutions

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB, D General Education: DSHS, DVUP

Development of the individual in the context of relationships with the formal and informal institutions of society. An examination of various aspects of development from the broad perspective of the social sciences.

0101	Joshua Jaffe MW 9:30am - 10:45am *Restricted to students in the Human Development major and Human Development minor.*	Seats (Total: 40) ARC 1105

EDHD306 Research Methods in Human Development

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSAR

Addresses the scientific concepts and principles central to the study of human behavior and development. Students will learn about basic research methods in studying human behavior in developmental context and will participate in experiential activities, such as conducting observations and collecting self-report data. Major themes: goals of developmental research, fundamental research designs, types of measurement, elements of good scientific writing, and ethical issues in the study of human development.

0101	Richard Prather TuTh 9:30am - 10:45am	Seats (Total: 40) EDU 2119
0201	Eric Schoute MW 9:30am - 10:45am	Seats (Total: 40) SQH 1105
0301	Richard Prather TuTh 11:00am - 12:15pm	Seats (Total: 40) EDU 2119
0401	Eric Schoute MW 11:00am - 12:15pm	Seats (Total: 40) SQH 1105

EDHD319 **Selected Topics in Human Development**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics in human development in relation to contemporary culture.

Contact department for information to register for this course.

EDHD320 **Human Development Through the Life Span**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS

Central concepts related to parameters of human development, individual and social, which arise throughout the life span. Continuity and change within the developing individual.

0101	Christina Edmonds MW 12:30pm - 1:45pm	Seats (Total: 40) TWS 0214
0201	Christina Edmonds MW 11:00am - 12:15pm	Seats (Total: 40) EDU 1121
0301	Jennie Lee-Kim Th 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 38) EDU 3315 ONLINE
0401	Rachel Ghosh TuTh 9:30am - 10:45am	Seats (Total: 40) SQH 1103
0501	Rachel Ghosh TuTh 11:00am - 12:15pm	Seats (Total: 40) SQH 1101
0601	Olga Walker TuTh 12:30pm - 1:45pm	Seats (Total: 40) ONLINE

EDHD386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Restriction: Permission of EDUC-Human Development and Quantitative Methodology department; and junior standing or higher.

Contact department for information to register for this course.

EDHD390 **Career Paths and Internship Preparation in Human Development**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Human Development major.

Prepares degree candidates in Human Development for career paths in the field including initial job seeking skills, knowledge necessary for entry into various professions and preparation for the program internship requirement

0101	Jennie Lee-Kim Tu 2:00pm - 2:50pm Class time/details on ELMs *Must be in the Human Development Major.*	Seats (Total: 20) EDU 1315 ONLINE

EDHD402 **Social Development**

Credits: 3 Grading Method: Regular, Pass-Fail

Recommended: EDHD411.

Social Development. Critical concepts and ideas of the study of child and adolescent social development. Focus on changes in interpersonal relationships, emotions, achievement-related behavior and competence, and functioning within the broader social context.

0101	Angelica Alonso MW 9:30am - 10:45am	Seats (Total: 40) SQH 1117
0201	Olga Walker MW 11:00am - 12:15pm	Seats (Total: 40) TWS 0205

EDHD411 **Child Growth and Development**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS

Theoretical approaches to and empirical studies of physical, psychological and social development from conception to puberty. Implications for home, school and community.

0101	Mary DePascale MW 2:00pm - 3:15pm	Seats (Total: 40) SQH 1117
0201	Mary DePascale MW 3:30pm - 4:45pm	Seats (Total: 40) SQH 1117

EDHD412 **Infant Development**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS

Infant development across domains, including perceptual, motor, cognitive, language, social and emotional functioning from pre-natal through third year of life.

0101	Yu Chen TuTh 9:30am - 10:45am	Seats (Total: 40) SQH 1117

EDHD413 **Adolescent Development**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS

Adolescent development, including special problems encountered in contemporary culture. Observational component and individual case study.

0101	Geetha Ramani MW 11:00am - 12:15pm	Seats (Total: 40) EDU 2119
0201	Jacquelyn Glidden TuTh 9:30am - 10:45am	Seats (Total: 40) TYD 1114
0301	Geetha Ramani MW 9:30am - 10:45am	Seats (Total: 40) EDU 2119

EDHD415 **Promoting the Social-Emotional Competence of Young Children in Inclusive Classrooms**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail

Prerequisite: EDHD314 and EDHD425; and (EDHD419 or EDSP420). Corequisite: EDSP423, EDSP424, and EDHD431. Restriction: Must be in the Professional Early Childhood/Early Childhood Special Education program; and junior standing or higher; and minimum cumulative GPA of 2.75.

Teachers must have knowledge and skill regarding how to appropriately manage the classroom so that all children, those with and without disabilities, will be able to learn from their school experiences. Classroom management extends beyond responding to student misbehavior to include a comprehensive approach to addressing the social/emotional competence of typically and atypically developing children. The goal of this course is to prepare early childhood teachers who are able to sensitively, responsively, and effectively manage a classroom of young students who are typically developing and those who have disabilities. Includes Field Experience.

0101	D'Lisa Worthy	Seats (Total: 25)
	Tu 4:15pm - 6:15pm	JMZ 0208
	Contact instructor or department for details.	

EDHD424 **Culture, School & Community: Contexts for Learning (PreK-3rd)**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: EDHD425 and EDHD314; and (EDHD419 or EDSP420). Corequisite: EDSP315, EDHD431, EDHD415, and EDSP423. Restriction: Must be in the Professional Early Childhood/Early Childhood Special Education program; and junior standing or higher; and minimum cumulative GPA of 2.75.

Explores the development of the young child (with and without disabilities, as well as those at environmental risk) in the context of the family and community, with emphasis on the impact of state, federal and school system policy on the child's world. Course will consider issues within the family, and the wider socio-cultural ecology that relate to the child's ability to develop and learn. In addition, students will develop strategies for respectful and culturally responses approaches to actively engage families in their children's development and learning. Includes Field Experience.

0101	Amanda Schwartz	Seats (Total: 25)
	W 10:00am - 12:00pm	TWS 1321
	Contact instructor or department for details.	

EDHD426 **Cognitive and Motivational Literacy Content**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Students preparing for secondary teaching will learn about the cognitive and motivational aspects of literacy and learning from text for the content areas of literature, science, history and mathematics. Different evidenced-based literacy approaches appropriate for content learning are presented. Characteristics of learning environments that enable students to engage productively with diverse texts, disciplinary tasks, and technological resources in content areas are identified.

Restricted to major codes 0831L, 0831P, 0833L, 0833P, 0843L, 0834P, 0840L, 0840P, 0841L, 0841P, 0842L, 0842P, 0843L, 0843P, 0844L, 0844P.

0101	Daphne Williams	Seats (Total: 38)
	Tu 7:00pm - 9:45pm	EDU 3315

EDHD431 **Child Development and Learning, Three to Eight Years**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in EDHD314 and EDHD425; and 1 course with a minimum grade of C- from (EDHD419, EDSP420). Corequisite: EDSP423 and EDSP315; and TRACK I: Must be concurrently enrolled in EDSP430, EDSP433; or TRACK 2: Must be concurrently enrolled in EDHD415, EDHD424.

Provides a basic understanding of child development theory and research, as well as specific knowledge about the development of children during the early and middle childhood "stages," specifically from ages 3 years to 8 years. A major emphasis will be the application of theory and research from the field of educational psychology to an understanding of how young children learn and achieve academically. Because the course will address the developmental and academic functioning of children with and without disabilities, a particular focus will be on individualization.

0101	Elisa Klein	Seats (Total: 35)
	TuTh 2:00pm - 3:15pm	SQH 1105

EDHD432 **Internship in EC/ECSE**

Credits: 12 Grading Method: Sat-Fail

Prerequisite: EDHD323, EDHD322, EDSP417, EDHD441, EDHD442, EDHD443, EDHD444, and EDSP321. Corequisite: EDHD437. Restriction: Must be in Early Childhood and Early Childhood Special Education program; and senior standing or higher.

Interns spend five days per week in the classroom/home-based setting (under the mentorship of a certified teacher) where they gradually assume full responsibility for the planning, delivery and assessment of instruction or an intervention. Track I students will have an Infant/Toddler placement with special educator, Track II students will be in a Pre-K/K or Grade 1,2,3 classroom with general or special educator (must be opposite grade level and mentor from Phase I/fall of the senior year).

Students must pay a $350.00 lab fee.

0101	Stephanie Varner	Seats (Total: 35)
	Contact instructor or department for details.	
	See instructor for details.	

EDHD436 **Cognition and Motivation in Content Area Literacy for Middle-School Students**

Credits: 3 Grading Method: Regular, Pass-Fail

Cognitive and motivational processes of literacy and learning from texts across subjects. Structured approaches to using reading, writing, and speaking for content learning based on approaches to knowledge, motivation, and strategies. Classroom contexts that enable middle-school students to engage with diverse texts and Internet resources are provided

0101	Renae McPherson	Seats (Total: 30)
	Th 4:15pm - 7:00pm	EDU 3315
	Restricted to 0804L and 0804P major codes.	

EDHD437 **EC/ECSE Teachers as Researchers and Reflective Practitioners**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in EDHD322, EDHD323, EDSP321, EDSP417, EDHD441, EDHD442, EDHD443, and EDHD444. Corequisite: EDHD432.

Students use action research to improve instructional delivery or familial interactions in an effort to enhance the overall educational experiences/outcomes of children in classrooms or home-based contexts. Students will design and implement an action research project in an effort to meet a goal articulated in an applicable Individualized Education Plan (IEP) or Individualized Family Service Plan (IFSP) or School Improvement Plan (SIP) as the basis of their project.

0101	Stephanie Varner	Seats (Total: 35)
	Th 4:15pm - 7:00pm	EDU 1121

EDHD440 **Adult Development**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS

Prerequisite: EDHD320; or permission of EDUC-Human Development and Quantitative Methodology department. Recommended: EDHD413.

Major conceptual approaches to the study of adult development including physical, cognitive, social, emotional and self processes that take place within individuals as they progress from emerging adulthood through middle age.

0101	Olga Walker	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	ONLINE
	Restricted to students in the Human Development major and Human Development minor.	

EDHD460 **Educational Psychology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS

Prerequisite: PSYC100; or permission of EDUC-Human Development and Quantitative Methodology department.

Application of psychology to learning processes and theories. Individual differences, measurement, motivation, emotions, intelligence, attitudes, problem solving, thinking and communicating in educational settings.

0101	Jannah Fusenig MW 9:30am - 10:45am	Seats (Total: 40) EDU 1121
0201	Jannah Fusenig MW 8:00am - 9:15am	Seats (Total: 40) EDU 1121

EDHD489 **Field Experiences in Human Development**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Planned field experience (internship or research-based activities) related to Human Development. Credit not to be granted for experiences accrued prior to registration.

Contact department for information to register for this course.

EDHD498 **Special Problems in Education**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Available only to students who have definite plans for individual study of approved problems.

Contact department for information to register for this course.

EDHD629 **Seminar for the Center for Children, Relationships, and Culture**

Credits: 1 Grading Method: Regular, Audit

A seminar and colloquia series featuring speakers from the department, the college, the university, and other universities and institutions from across the world that aims to cover issues pertaining to contemporary theory and research in human development, child development, and developmental science. The seminar format is a weekly colloquia series, along with discussion sessions related to a range of developmental science topics.

0101	Richard Prather W 12:20pm - 2:45pm	Seats (Total: 25) EDU 1121

EDHD703 **Source Selection, Multimedia, & Misinformation: How Students Learn to Navigate Evidence in the 21st Century**

Credits: 3 Grading Method: Regular

Explores how students come to understand how evidence is acquired, produced, and used to make inferences and draw conclusions about the world. Topics will include selective trust, source selection, navigating multiple mediums and modalities, epistemic cognition, scientific reasoning, motivated cognition, and confirmation bias. We will explore both basic research on these topics as well as ways in which this research can be used to foster critical thinking and scientific literacy in childhood and beyond, in both formal and informal educational settings.

IH99	Lauren Trakhman	Seats (Total: 25)
	Tu 4:15pm - 7:00pm	Location: TBA
	This course is restricted to students enrolled in the off-campus M.Ed in Human Development program.	

EDHD718 **Apprenticeship in College Teaching**

(Perm req)

Credits: 1 Grading Method: Regular

For graduate students teaching autonomously for the first, second, or third tiem at the University of Maryland, College Park; not intended for teaching assistants. This course provides graduate student teachers with a set of structured experiences that foster professional growth and development in the role of college instructor. Includes seminars on the scholarship of college teaching and principles of optimal college classroom environments, peer and faculty in-class observations of teaching, and guided reflective analysis of experience in the classroom.

0101	Jennie Lee-Kim	Seats (Total: 10)
	F 1:00pm - 3:30pm	EDU 3315

EDHD722 **Learning Theory and the Educative Process**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDHD721; or permission of EDUC-Human Development and Quantitative Methodology department.

Advanced study of theories, issues and research in several categories of cognition and learning applied to education and the helping professions.

0101	Patricia Alexander	Seats (Total: 20)
	W 4:15pm - 7:00pm	EDU 2119

EDHD750 **Culture, Context, and Development**

Credits: 3 Grading Method: Regular, Sat-Fail

This course will cover theory and research on cultural and contextual influences on social development.

0101	Melanie Killen	Seats (Total: 20)
	Tu 1:00pm - 3:45pm	VMH 1107

EDHD751 **Child Development and Poverty**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDHD720; or permission of EDUC-Human Development and Quantitative Methodology department.

This course examines the theoretical, methodological, and empirical literature on the effects of poverty on children's development from a multidisciplinary perspective. It includes basic concepts in methodology, measurement design, and issues related to connecting basic research on poverty and children to policy and program interventions.

This course is restricted to students enrolled in the off-campus M.Ed in Human Development program.

IH99	Doireann Renzi	Seats (Total: 25)
	W 4:15pm - 7:00pm	ONLINE

EDHD775 **Human Development and Neuroscience**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: EDHD601; or permission of EDUC-Human Development and Quantitative Methodology department.

Course focuses on the biological bases of human behavior including physiological processes which have an impact on human development.

0101	Rachel Romeo	Seats (Total: 20)
	Tu 1:00pm - 3:45pm	EDU 2101

EDHD789 **Internship in Human Development**

(Perm req)

Credits: 3-8 Grading Method: Regular, Audit

Internship experience in one or more human service agencies in the community.

Contact department for information to register for this course.

EDHD798 **Laboratory in Human Development**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Independent research supervised by an instructor in a research setting.

Limited to human development majors.

Contact department for information to register for this course.

EDHD799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Registration required to the extent of six hours for master's thesis.

Limited to human development majors.

Contact department for information to register for this course.

EDHD888 **Apprenticeship in Human Development Research**

(Perm req)

Credits: 1-8 Grading Method: Regular, Audit

Apprenticeship in Human Development research.

Contact department for information to register for this course.

EDHD889 **Practicum in Human Development**

(Perm req)

Credits: 3-8 Grading Method: Regular, Audit

Field experience in applied human development at a professional level of competence in a particular role with appropriate supervision.

Contact department for information to register for this course.

EDHD898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

EDHD899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Registration required to 12-18 hours for a Ph.D. dissertation.

Limited to human development majors.

Contact department for information to register for this course.

EDHI Education Leadership, Higher Ed and International Ed — Spring 2022

EDHI489 **Field Experiences in Education**

(Perm req)

Credits: 1-4 Grading Method: Regular, Pass-Fail, Audit

Planned field experience in education-related activities. Credit not to be granted for experiences accrued prior to registration.

Contact department for information to register for this course.

EDHI498 **Special Problems in Education**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Available only to students who have definite plans for individual study of approved problems.

Contact department for information to register for this course.

EDHI606 **Political Economy of Education in a Global Context**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDHI606, EDPL606, or EDPS606. Formerly: EDPL606.

Examination of alternative economics perspectives and their implications for education policy and practice internationally, from local to global levels. The connection of education to issues of development, inequality, poverty, gender, and race will be discussed.

0101	Steven Klees Tu 4:15pm - 7:00pm Class time/details on ELMs	Seats (Total: 20) EDU 3236 ONLINE

EDHI607 **Culture and Education in a Global Context**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: EDHI607, EDPL607, or EDPS607. Formerly: EDPL607.

Examines cultural theories and analyzes cultural influences in education. Course materials and discussion critically analyze cultural transmission and schooling practices. Also examined are politics of culture, multiculturalism, global cultural clashes, and educators as critical culture workers.

0101	Jing Lin	Seats (Total: 20)
	W 4:15pm - 7:00pm Class time/details on ELMs	EDU 1121 ONLINE

EDHI653 **Organization and Administration of Higher Education**

Credits: 3 Grading Method: Regular

Credit only granted for: EDHI653, EDPL653, or EDPS653. Formerly: EDPL653.

Basic concepts and terminology related to organizational behavior and institutional governance structures. The governance and organization of higher education in the United States.

0101	Steffon Gray	Seats (Total: 20)
	W 7:00pm - 9:45pm	JMZ 1124

EDHI664 **The College Experience**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: EDHI664, EDPL664, or EDPS664. Formerly: EDPL664.

Designed to provide students with an overview of the research and scholarship on two of the major stakeholders in higher education -- students and faculty. Examines the educational experiences of college students in and out of the classroom in higher education in the United States by focusing on what students learn and the different collegiate experiences that influence their learning.

0101	Shannon Buenaflor	Seats (Total: 15)
	W 4:15pm - 7:00pm	EDU 0220

EDHI679 **Master's Seminar**

Credits: 3 Grading Method: Regular, Audit

Directed study for master's degree students writing seminar papers.

Contact department for information to register for this course.

EDHI680 **Gender, Development, and Education**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: EDHI674, EDHI680 or EDHI788K. Formerly: EDHI788K.

Focusing on gender as an analytical frame and a discrete variable, a comprehensive view of the relationship between gender and education in the context of national development is presented. It identifies the conditions of men and women's education and policy efforts to promote equity and social transformation.

0101	Lauren DeCrosta	Seats (Total: 20)
	M 4:15pm - 7:00pm	ONLINE
	Class time/details on ELMs	ONLINE

EDHI689 **Practicum In Educational Administration and Supervision**

(Perm req)

Credits: 1-3 Grading Method: Sat-Fail

Promotes skill development in managerial, leadership and supervisory areas. Practicum is based on results of diagnostic instruments and an individual professional development plan.

Contact department for information to register for this course.

EDHI754 **Higher Education Finance**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: EDHI754, EDPL754, or EDPS754. Formerly: EDPL754.

Economic perspectives on higher education. Ways of financing higher education and current finance issues. Higher education budget concepts and processes.

0101	Marvin Titus	Seats (Total: 15)
	M 4:15pm - 7:00pm	EDU 1315

EDHI788O **Special Topics in Education Policy and Administration; International Education Grant/Proposal Writing**

Credits: 1 Grading Method: Regular, Audit

Special and intensive treatment of current topics and issues in education policy and administration.

0101	Mohammad Malik Sakil	Seats (Total: 20)
	Th 7:00pm - 9:45pm	ONLINE
	Class time/details on ELMs	ONLINE
	Synchronous Days: Jan 27th, Feb 10th, Feb 24th, Mar 10, Mar 31.	

EDHI788X **Special Topics in Education Policy and Administration; International Investigations in Cuban Education**

Credits: 3 Grading Method: Regular, Audit

Special and intensive treatment of current topics and issues in education policy and administration.

Contact department for information to register for this course.

EDHI789 **Doctoral Practicum in Administration and Supervision**

Credits: 1-3 Grading Method: Sat-Fail

Experiential activities designed to enhance student skills. Based on Individual Professional Development Plan for each student.

Contact department for information to register for this course.

EDHI798 **Special Problems in Education**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Master's, AGS, or doctoral candidates who desire to pursue special research problems under the direction of their advisors may register for credit under this number.

Contact department for information to register for this course.

EDHI798B **Special Problems in Education; International Investigations in Cuban Education**

Credits: 3 Grading Method: Regular, Audit

Master's, AGS, or doctoral candidates who desire to pursue special research problems under the direction of their advisors may register for credit under this number.

Contact department for information to register for this course.

EDHI799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

EDHI853 **Leadership in Higher Education**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: EDHI653. Credit only granted for: EDHI853, EDPL853, or EDPS853. Formerly: EDPL853.

Theories of organizational leadership applied to institutions of higher education.

0101	Sharon Fries-Britt Th 4:15pm - 7:00pm	Seats (Total: 15) EDU 2102

EDHI888 **Apprenticeship in Education**

Credits: 1-8 Grading Method: Regular, Audit

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

0101	Sharon Fries-Britt Contact instructor or department for details.	Seats (Total: 5)
0801	KerryAnn O'Meara Contact instructor or department for details.	Seats (Total: 5)
2701	Marvin Titus Contact instructor or department for details.	Seats (Total: 5)
3101	Shannon Buenaflor Contact instructor or department for details.	Seats (Total: 5)
3501	Alberto Cabrera Casillas Contact instructor or department for details.	Seats (Total: 5)

EDHI889 **Internship in Education**

(Perm req)

Credits: 3-8 Grading Method: Regular, Audit

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Contact department for information to register for this course.

EDHI895 **Research Critique Seminar**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: EDHI895, EDPL895, or EDPS895. Formerly: EDPL895.

Critiques of research designs in preparation for the doctoral dissertation.

Contact department for information to register for this course.

EDHI898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

EDHI899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Registration required to the extent of 6-9 hours for an Ed.D. Project and 12-18 hours for a Ph.D. Dissertation.

Contact department for information to register for this course.

EDMS Measurement, Statistics, and Evaluation Spring 2022

EDMS451 **Introduction to Educational Statistics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSAR

Restriction: Sophomore standing or higher. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201.

Introduction to statistical reasoning; location and dispersion measures; computer applications; regression and correlation; formation of hypotheses tests; t-test; one-way analysis of variance; analysis of contingency tables.

0201	Ashani Jayasekera TuTh 12:30pm - 1:45pm	Seats (Total: 30) HBK 1108
0301	Yi Feng MW 11:00am - 12:15pm	Seats (Total: 30) EDU 3315

EDMS626 **Instrumentation**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: EDMS623.

Theory, development, and applications of various affective, cognitive, or behavioral measurement instruments and procedures, including questionnaire and test items, observational protocols, and cutting-edge innovative game and scenario-based assessments.

0101	Hong Jiao Th 4:15pm - 7:00pm	Seats (Total: 20) VMH 1107

EDMS645 **Quantitative Research Methods I**

Credits: 3 Grading Method: Regular, Audit

Research design and statistical applications in educational research: data representation; descriptive statistics; estimation and hypothesis testing. Application of statistical computer packages is emphasized.

0101	Megan Masters M 4:15pm - 7:00pm	Seats (Total: 30) LEF 1220

EDMS646 **General Linear Models I**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: EDMS645; or an equivalent introductory statistics course.

A first post-introductory inferential statistics course, with emphasis on analysis of variance procedures and designs from within the general linear modeling framework. Assignments include student analysis of education and related data; application of statistical software packages is emphasized.

0101	Jeffrey Harring Tu 4:15pm - 7:00pm	Seats (Total: 30) EDU 3315

EDMS647 **Causal Inference and Evaluation Methods**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Must have completed or be concurrently enrolled in EDMS651.

Counterfactual (potential outcomes) framework for causal inference, design/analysis strategies for confounder control, and specific best-practice applications to the evaluation of programs.

0101	Peter Steiner Tu 4:15pm - 7:00pm	Seats (Total: 30) LEF 1220

EDMS651 **General Linear Models II**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: EDMS646; or students who have taken courses with comparable content may contact the department.

Multiple regression and correlation analysis; trend analysis; hierarchical and stepwise procedures; logistic regression; software for regression analysis.

0101	Ji Seung Yang	Seats (Total: 30)
	M 4:15pm - 7:00pm	EDU 3315

EDMS665 **Data Analysis and Statistical Consulting**

Credits: 3

Grading Method: Regular, Sat-Fail

Prerequisite: EDMS651; or students who have taken courses with comparable content may contact the department.

Advanced data analysis procedures applied to real-world clients' problems arising in a wide variety of substantive research settings within and beyond education.

0101	Tracy Sweet	Seats (Total: 15)
	MW 2:00pm - 3:15pm	EDU 2102

EDMS722 **Structural Modeling**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: EDMS657.

Statistical theory and methods of estimation used in structural modeling; computer program applications; multisample models; mean structture models; structural models with multilevel data (e.g., sampling weights, growth models, multilevel latent variable models).

0101	Gregory Hancock	Seats (Total: 30)
	Tu 4:15pm - 7:00pm	EDU 1121

EDMS724 **Modern Measurement Theory**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: EDMS623 and EDMS651.

Theoretical formulations of measurement from a latent trait theory perspective.

0101	Yang Liu	Seats (Total: 20)
	W 4:15pm - 7:00pm	EDU 3236

EDMS769M **Special Topics in Applied Statistics in Education; Social Network Models**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Designed primarily for students majoring or minoring in measurement, statistics or evaluation.

0101	Tracy Sweet	Seats (Total: 15)
	Th 4:15pm - 7:00pm	EDU 3233

EDMS787 **Bayesian Inference and Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: EDMS779 or permission of the instructor. Credit only granted for: EDMS769B or EDMS787. Formerly: EDMS769B.

Models and model fitting methods commonly used in Bayesian Inference, such as Markov Chain Monte Carlo methods (e.g., Gibbs, Metropolis Sampling), with applications within and beyond the social and behavioral sciences. Analytical and philosophical differences between Frequentist and Bayesian statistics will also be highlighted.

0101	Yang Liu	Seats (Total: 20)
	M 4:15pm - 7:00pm	EDU 3233

EDMS798 **Special Problems in Education**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Master's, EDMS majors, or doctoral candidates who desire to pursue special research problems under the direction of their advisors may register for credit under this number.

Prerequisite: permission of department.

Contact department for information to register for this course.

EDMS799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Registration required to the extent of 6 credits.

Contact department for information to register for this course.

EDMS889 **Internship in Measurement and Statistics**

Credits: 3-8 Grading Method: Regular, Audit

Provides internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Contact department for information to register for this course.

EDMS898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

EDMS899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Registration required to the extent of 12 credits.

Contact department for information to register for this course.

EDSP Education, Special Spring 2022

EDSP210 **Introduction to Special Education**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVUP

Restriction: Sophomore standing or lower. Credit only granted for: EDSP210, EDSP211 or EDSP470.

Characteristics and needs of individuals receiving special education and related services. Current issues and practices in special education.

0101	Alicia Woolf MW 5:00pm - 6:15pm	Seats (Total: 10) TWS 1310
0201	Seyma Intepe Tingir MW 12:30pm - 1:45pm	Seats (Total: 10) TWS 1310

EDSP211 **Introduction to Special Education**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DVUP

Restriction: Sophomore standing or lower; and permission of EDUC-Counseling, Higher Education and Special Education department. Credit only granted for: EDSP210, EDSP211 or EDSP470.

An introduction to the field of special education. Students examine historical foundations, including legislation; review components necessary for effective service delivery; and develop an understanding of the role of collaboration and consultation with parents, school personnel and other professionals. In addition, students are introduced to the nature and characteristics of various disabilities and review current issues in the field including overrepresentation of minority students in special education, inclusion, and federal and state assessment mandates. Current topics are addressed including evidence-based practices, universal design for learning, and individualization and differentiation of instruction..

0101	Amanda Schwartz TuTh 2:00pm - 3:15pm	Seats (Total: 25) EDU 3233

EDSP220 **Disability in Community: Access, Accommodation, and Adaptation**

Credits: 3

Grading Method: Regular, Pass-Fail

General Education: DSSP, DVCC

Examines the concept of disability in a variety of community settings. Drawing on classic and contemporary readings in psychology, sociology and special education, the course will couple conceptual and historical understanding of disability with first-hand service-learning experiences in the community. Students will develop a plan in several phases that encompasses principles of Universal Design for Living/Learning (UDL) to study and participate in community-based activities.

0101	Carolyn Fink Tu 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 20) ONLINE ONLINE

EDSP311 **Peer Mentor Training and Certification**

Credits: 3

Grading Method: Regular

This course program offers a variety of opportunities and training to facilitate learning by providing students with ID/DD as a peer in the natural environment. Students will be able to develop understanding of disabilities and other conditions that could affect learning and other activities and learn ways to assist and build friendship through a mentor-mentee relationship. As part of the course, students will work on course assignments (discussions, reflections, and case analysis) and field work where they will directly work with diverse populations in the Terps-EXCEED program.

0101	Yewon Lee TuTh 9:30am - 10:45am	Seats (Total: 25) TWS 1321

EDSP315 **Inclusive Instruction: Reading Methods II**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: EDHD314 and EDHD425; and (EDHD419 or EDSP420). Corequisite: EDSP423 and EDHD431; and track 1: Must be concurrently enrolled in EDSP430 and EDSP433; OR Track 2: Must be concurrently enrolled in EDHD415 and EDHD424.

Focus on current research and methods of teaching reading in the primary grades. Examination of development of a balanced literacy program of children of all reading levels in inclusive early childhood classrooms. Students will learn to select and use a variety of evidence-based reading strategies and assessment tools for reading and writing instruction. Includes field experiences.

0101	Jennifer McCatharn M 4:15pm - 6:15pm Contact instructor or department for details.	Seats (Total: 35) ASY 3203

EDSP376 **Fundamentals of Sign Language**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

Receptive and expressive skills in American Sign Language. Examination of the causes of deafness, characteristics of deaf education, and aspects of the culture of the deaf community.

0101	Elizabeth Martinez MW 6:15pm - 7:30pm	Seats (Total: 20) VMH 1107
0201	Dina Toulan TuTh 5:00pm - 6:15pm	Seats (Total: 20) ONLINE

EDSP403 **Instruction of Students with Physical Disabilities**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: EDSP400 or EDSP602. Jointly offered with: EDSP603. Credit only granted for: EDSP403 or EDSP603.

Knowledge and practices in characteristics of multiple disabilities, assessment, individualized educational programming, universal design processes for instruction, assistive technology, environmental accessibility, and collaboration.

0101	Gulnoza Yakubova Tu 10:15am - 1:00pm	Seats (Total: 35) EDU 3315

EDSP410 **Instruction of Students with Severe Disabilities II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Special Education program. Jointly offered with EDSP614. Credit only granted for: EDSP410 or EDSP614.

Functional assessment, curriculum, and instruction related to academic and community functioning skills for students with severe disabilities.

0101	Seyma Intepe Tingir	Seats (Total: 35)
	M 4:15pm - 7:00pm	EDU 1121

EDSP415 **Assessment in Special Education**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: STAT100; or SOCY201. Restriction: Must be in Special Education program. Jointly offered with: EDSP615. Credit only granted for: EDSP415 or EDSP615.

Knowledge and skills for understanding assessment process and interpretation of assessment data. Emphasis on psychometric aspects of assessment related to screening, eligibility, and program planning.

0101	Kelli Cummings	Seats (Total: 35)
	Tu 1:15pm - 4:00pm	EDU 3315

EDSP416 **Reading and Writing Instruction in Special Education I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Restriction: Must be in Special Education program. Jointly offered with EDSP616. Credit only granted for: EDSP416 or EDSP616.

Assessment and instruction of reading and writing skills for students in special education.

0101	Jennifer McCatharn	Seats (Total: 28)
	M 1:15pm - 4:00pm	EDU 3315

EDSP423 **Assessment in Early Childhood Special Education**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Special Education program. Credit only granted for: EDSP423 or EDSP624.

Assessment procedures for infants and young children with disabilities, birth through grade 3.

0101	Jennifer Amilivia	Seats (Total: 35)
	TuTh 12:30pm - 1:45pm	ARC 1103

EDSP426 **Pre-Internship II**

Credits: 1 Grading Method: Regular, Pass-Fail

Corequisite: EDSP415 and EDSP416. Restriction: Must be in the Special Education major.

A 3-hour per week seminar and field placement that meets across 15 weeks. Teacher candidates will assess and provide instruction for first grade students at a local public elementary school. The field experience is also supported through content delivered in EDSP 415/615 (Assessment in Special Education) and EDSP 416/616 (Reading and Writing Instruction in Special Education). The tutoring program is meant to provide an opportunity for teacher candidates to practice the assessment and instructional skills they are learning, while also providing a needed service to the community. Teacher candidates will work one-on-one with select first graders whose teachers have determined to be in need of extra support in reading and writing.

0101	Josue Otarola, Heather Stormont	Seats (Total: 28)
	W 1:00pm - 4:00pm	EDU 3315

EDSP430 **Early Intervention: Early Childhood Special Education**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Special Education program. Credit only granted for: EDSP430 or EDSP631.

Intervention with infants and young children with disabilities. Focus on moderate and severe disabilities.

0101	Jennifer Amilivia	Seats (Total: 15)
	W 1:00pm - 3:00pm Contact instructor or department for details.	SQH 2120

EDSP433 **Families and Culture in Early Intervention (Birth-5)**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: EDHD314 and EDHD425; and (EDHD419 or EDSP420). Corequisite: EDSP430, EDSP315, and EDHD431.

Provides students with the skills and information they need to work effectively with families of young children (birth to age 5) who have or are at risk for disabilities in early childhood or early intervention programs. Students will review current local, state and federal policies establishing the rights of families of infants and young children with disabilities to participate in decision making for their child. We will discuss relevant theoretical and research literature as well as the cultural and contextual issues involved in working with families of very young children. Includes field experiences.

0101	Jennifer Amilivia W 10:00am - 12:00pm Contact instructor or department for details.	Seats (Total: 15) SQH 1125

EDSP470 **Introduction to Special Education**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVUP

Restriction: Must not have completed EDSP210. Credit only granted for: EDSP210, EDSP211 or EDSP470.

Designed to give an understanding of the needs of all types of exceptional children.

EC/ECSE majors should register for EDSP211.

0101	Alicia Woolf MW 5:00pm - 6:15pm	Seats (Total: 40) TWS 1310
0201	Seyma Intepe Tingir MW 12:30pm - 1:45pm	Seats (Total: 40) TWS 1310

EDSP476 **Communicating with Sign Language**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: EDSP376. Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department.

Intermediate level receptive/expressive skills in American Sign Language. Aspects of the culture, history, and research perspectives of the deaf community.

0101	Elizabeth Martinez MW 5:00pm - 6:15pm	Seats (Total: 20) VMH 1107

EDSP485 **Assessment and Instruction in Mathematics in Special Education**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Special Education program; or must be in one of the following programs (Special Education (Doctoral); Special Education (Master's)). Jointly offered with EDSP683. Credit only granted for: EDSP485 or EDSP683.

Instructional methods and assessment in mathematics in special education.

0101	Yewon Lee	Seats (Total: 24)
	Th 3:15pm - 6:00pm	TWS 1321

EDSP487 Family Partnerships in Special Education

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Special Education program. Jointly offered with: EDSP687. Credit only granted for: EDSP487 or EDSP687.

Strategies for positively collaborating with families, practitioners, and community stakeholders to implement Specially Designed Instruction (SDI) for students with disabilities.

0101	Dawn Martin	Seats (Total: 20)
	W 4:15pm - 7:00pm	EDU 2102

EDSP489 Field Experiences in Special Education

Credits: 1-4 Grading Method: Regular, Pass-Fail, Audit

Planned field experience in education-related activities. Credit not to be granted for experiences accrued prior to registration.

Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department.

Contact department for information to register for this course.

EDSP495 Internship II: Elementary/Middle Special Education

Credits: 6-12 Grading Method: Regular

Corequisite: EDSP490. Restriction: Must be in Special Education program; or must be in one of the following programs (Special Education (Doctoral); Special Education (Master's)). Jointly offered with: EDSP695. Credit only granted for: EDSP495 or EDSP695.

Internship II is a full-time 15 week field-placement experience in a local school system working with students with disabilities in an elementary or middle school environment. Internship II allows the intern to apply and integrate teaching competencies and responsibilities by systematically increasing independence in conducting all aspects of the special education mentor teacher's role. The intern will incrementally assume responsibility for planning, instruction, management, collaboration, and other essential tasks assigned in their internship placement. The intern will be responsible for the successful completion of edTPA, seminar assignments, and self-evaluation using Live Text for Foundational Competencies (FCs) and the Performance Based Assessment (PBA). Interns will be asked to recall and integrate course content from their prerequisite coursework during seminar and their field placement experience.

Students must pay a $750.00 lab fee.

0101	Stacey Williams	Seats (Total: 25)
	Contact instructor or department for details.	

EDSP498 **Special Problems in Special Education**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Available only to education majors who have definite plans for individual study of approved problems. Credit according to extent of work.

Special education majors only.

Contact department for information to register for this course.

EDSP499 **Workshops, Clinics, and Institutes in Special Education**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

The following type of educational enterprise may be scheduled under this course heading: workshops conducted by the special education department (or developed cooperatively with other departments, colleges and universities) and not otherwise covered in the present course listing. Laboratories, and special education centers; institutes developed around specific topics or problems and intended for designated groups such as school superintendents, principals and supervisors.

0901	Instructor: TBA	Seats (Total: 5)
	Contact instructor or department for details.	

EDSP603 **Instruction of Students with Physical Disabilities**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in Special Education (Doctoral) program; or must be in Special Education (Master's) program. Jointly offered with: EDSP403. Credit only granted for: EDSP403 or EDSP603.

Knowledge and practices in characteristics of multiple disabilities, assessment, individualized educational programming, universal design processes for instruction, assistive technology, environmental accessibility, and collaboration .

0101	Gulnoza Yakubova	Seats (Total: 35)
	Tu 10:15am - 1:00pm	EDU 3315

EDSP613 **Behavior and Classroom Management in Special Education**

Credits: 3 Grading Method: Regular, Sat-Fail

Restriction: Must be in Special Education (Doctoral) program; or must be in Special Education (Master's) program; or permission of instructor. Jointly offered with: EDSP413. Credit only granted for: EDSP413 or EDSP613.

Use of positive behavior supports to promote both classwide and individual student behavior skills through function-based behavior assessment, establishing classroom expectations, and examining common misbehaviors that often result in learning loss.

Contact department for information to register for this course.

EDSP614 **Instruction of Students with Severe Disabilities II**

Credits: 3 Grading Method: Regular

Restriction: Must be in Special Education (Master's) program. Credit only granted for: EDSP410 or EDSP614.

Functional assessment, curriculum, and instruction related to academic and community functioning skills for students with severe disabilities.

0101	Seyma Intepe Tingir	Seats (Total: 35)
	M 4:15pm - 7:00pm	EDU 1121

EDSP615 **Evaluation and Measurement of Exceptional Children and Youth**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: EDSP600 and EDMS646; or permission of EDUC-Counseling, Higher Education and Special Education department. Jointly offered with: EDSP415. Credit only granted for: EDSP415 or EDSP615.

Knowledge and skills for understanding assessment process and interpretation of assessment data. Emphasis on psychometric aspects of assessment related to screening, eligibility, and program planning.

0101	Kelli Cummings Tu 1:15pm - 4:00pm	Seats (Total: 35) Location: TBA
PLT1	Tori Page-Voth Class time/details on ELMs	Seats (Total: 30) ONLINE

Must be in the General Education Teachers in Inclusive Classrooms program or a graduate student in a Semester Academic Calendar program.

EDSP616 **Reading and Writing Instruction in Special Education I**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in Special Education (Doctoral) program; or must be in Special Education (Master's) program. Jointly offered with EDSP41 6. Credit only granted for: EDSP416 or EDSP616.

Assessment and instruction of reading and writing skills and strategies for students in special education.

0101	Jennifer McCatharn M 1:15pm - 4:00pm	Seats (Total: 28) EDU 3315

EDSP670 **Single Subject Research Designs**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: EDSP600. Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department.

Design, application, procedures, and analysis of single case research designs in special education to effectively evaluate instructional decisions.

0101	Gulnoza Yakubova Tu 4:15pm - 7:00pm	Seats (Total: 20) EDU 0220

EDSP675 **Legal and Policy Foundations for Individuals with Disabilities**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department.

Regulatory and statutory foundations for public policies addressing the education of children and youth with disabilities.

0101	Philip Burke	Seats (Total: 15)
	Th 4:15pm - 7:00pm	EDU 1315

EDSP678M **Seminar in Special Education**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

EDSP683 **Assessment and Instruction in Mathematics in Special Education**

Credits: 3

Grading Method: Regular, Audit

Restriction: Must be in Special Education (Doctoral) program; or must be in Special Education (Master's) program. Jointly offered with EDSP48 5. Credit only granted for: EDSP485 or EDSP683.

Instructional methods and assessment in mathematics in special education.

0101	Yewon Lee	Seats (Total: 24)
	Th 3:15pm - 6:00pm	TWS 1321

EDSP687 **Family Partnerships in Special Education**

Credits: 3

Grading Method: Regular, Sat-Fail

Restriction: Must be in Special Education (Doctoral) program; or must be in Special Education (Master's) program. Jointly offered with: EDSP487. Credit only granted for: EDSP487 or EDSP687.

Strategies for positively collaborating with families, practitioners, and community stakeholders to implement Specially Designed Instruction (SDI) for students with disabilities.

0101	Dawn Martin	Seats (Total: 20)
	W 4:15pm - 7:00pm	EDU 2102

EDSP695 **Graduate Internship II: Elementary/Middle Special Education**

Credits: 6-11

Grading Method: Regular, Audit

Corequisite: EDSP690. Recommended: Must be in Special Education (Master's) program EDSPM Special Education. Restriction: Must be in Special Education (Master's) program. Credit only granted for: EDSP495, EDSP695 or EDSP888A.

Internship II is a full-time 15 week eld-placement experience in a local school system working with students with disabilities in an elementary or middle school environment. Internship II allows the intern to apply and integrate teaching competencies and responsibilities by systematically increasing independence in conducting all aspects of the special education mentor teacher's role. The intern will incrementally assume responsibility for planning, instruction, management, collaboration, and other essential tasks assigned in their internship placement. The intern will be responsible for the successful completion of edTPA, seminar assignments, and self-evaluation using Live Text for Foundational Competencies (FCs) and the Performance Based Assessment (PBA). Interns will be asked to recall and integrate course content from their prerequisite coursework during seminar and their eld placement experience.

Students must pay a $750.00 lab fee.

0101	Stacey Williams	Seats (Total: 25)
	Contact instructor or department for details.	

EDSP798 **Special Problems in Special Education**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Intended for Master's, AGS, or doctoral students in education who desire to pursue a research problem.

Special education majors only.

Contact department for information to register for this course.

EDSP799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Registration required to the extent of six hours for Master's thesis.

Special education majors only.

Contact department for information to register for this course.

EDSP872 **Theory and Empirical Design in Educational Research**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDMS645 and EDMS646; or permission of EDUC-Counseling, Higher Education and Special Education department. Restriction: Must be in Special Education (Doctoral) program. Credit only granted for: EDSP672 or EDSP872. Formerly: EDSP672.

Design and evaluation of quantitative research in special education across disabilities and ages.

0101	Susan De La Paz Tu 1:15pm - 4:00pm Class time/details on ELMs	Seats (Total: 10) JMZ 1123 ONLINE
IH17	Kelli Cummings **Meets January 28, 2022 - March 20, 2022** F 6:30pm - 9:00pm Sa 9:00am - 5:00pm	Seats (Total: 25) ONLINE Location: TBA

EDSP888 **Apprenticeship in Special Education**

(Perm req)

Credits: 1-8 Grading Method: Regular, Audit

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate- seeking graduate students.

Contact department for information to register for this course.

EDSP888A **Apprenticeship in Special Education; Apprenticeship in College Teaching**

Credits: 1-3 Grading Method: Regular

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate- seeking graduate students.

Contact department for information to register for this course.

EDSP889 **Internship in Special Education**

(Perm req)

Credits: 3-8 Grading Method: Regular, Audit

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Special education majors only.

Contact department for information to register for this course.

EDSP898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

EDSP899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Registration required to the extent of 6-9 hours for an Ed.D. Project and 12-18 hours for a Ph.D. dissertation.

Special education majors only.

Contact department for information to register for this course.

EDUC Education Spring 2022

EDUC388 **Special Topics in Education; Guided Experiences in College Teaching**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Restricted to students approved as undergraduate teaching assistants. Section 0101 is reserved for standard UTA program and should be taken concurrently with EDUC498, 0101 for one credit.

0201	Sharon Vanwright	Seats (Total: 20)
	Contact instructor or department for details. Contact instructor or department for details.	
	Relates to Academic Achievement Program- should be taken concurrently w th EDCI 498, Section 6601.	

EDUC388C **Special Topics in Education; Guided Experience in Teaching for Peer Educators**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

0101	Evelyn Covington	Seats (Total: 15)
	Meets March 21, 2022 - May 13, 2022	
	Contact instructor or department for details.	

EDUC388T **Special Topics in Education; Guided Experiences in College Teaching - UTA**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

0101	Matthew Wilson	Seats (Total: 25)	
	M 5:00pm - 7:00pm Class time/details on ELMs	ONLINE ONLINE	 Discussion

EDUC498 **Selected Topics in Education**

(Perm req)

Credits: 1 Grading Method: Regular

Current topics and issues in education.

0101	Matthew Wilson	Seats (Total: 60)
	Contact instructor or department for details.	

EDUC498B **Selected Topics in Education; Career Development and Advising**

(Perm req)

Credits: 1-3 Grading Method: Regular

Current topics and issues in education.

0101	Jessica Chew	Seats (Total: 15)
	W 5:00pm - 5:50pm	EDU 1204
	Contact instructor or department for details.	

EDUC645 **Leading Instructional Improvement**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDHI645 or EDUC645. Formerly: EDHI645.

Development of knowledge and skills in the use of data bases, research findings and models of supervision, to improve instruction in schools.

Contact department for information to register for this course.

EDUC646 **Leading Instructional Excellence**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDUC645; or permission of instructor. Credit only granted for: EDHI646 or EDUC646. Formerly: EDHI646.

Leader's role in fostering high quality teaching and learning. Exploration of the relationship between curriculum instruction assessment and the organizational structure of K-12 public schooling. Development and assessment of frameworks for understanding instructional quality. Analysis of strategies for supporting teachers as they engage in curricular and professional development. Consideration of factors involved in creating and sustaining instructionally centered schools.

Contact department for information to register for this course.

EDUC701 **Applied Research and Data Based Decision Making for School Leaders**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of EDUC-College of Education. Credit only granted for: EDUC701 or EDHI701. Formerly: EDHI701.

This course focuses on understanding school system data including student assessments, teacher and administrator evaluations and other program data. Ed.D. students will learn to evaluate the technical characteristics and implications for use of such data as well as how to design instruments to collect needed data.

Contact department for information to register for this course.

EDUC760 The Human Dimension in Administration

Credits: 4 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of EDUC-College of Education. Credit only granted for: EDUC760 or EDHI760. Formerly: EDHI760.

Course focuses on theory, research findings, and current practices in managing human resources in educational organizations. Issues related to performance evaluations, professional development, and legal and ethical standards are addressed.

Contact department for information to register for this course.

EDUC770 System Innovation and Transformation

Credits: 4 Grading Method: Regular, Audit

Restriction: Permission of EDUC-College of Education. Credit only granted for: EDUC769, EDHI788M, or EDUC770. Formerly: EDHI788M.

Course is designed to provide EdD students understanding how complex systems improve performance and connect educational and social objectives to goals of innovation and efficiency.

Contact department for information to register for this course.

EDUC773 Seminar in School Finance and Resource Management

Credits: 4 Grading Method: Regular

Prerequisite: Permission of instructor. Restriction: Must be in the Ed.D. School System Leadership program.

Issues related to financing and resource management in US K-12 public education systems will be investigated including how various levels of government support public education, and the revenue-generating tools they use. A major theme throughout the course will be on how the values and concepts of educational equity drive the distribution of revenue to schools and how to use data to create . a school-level resourcing plan that provides access and opportunities to learning for every student.

Contact department for information to register for this course.

EDUC888 **Applied Apprenticeship in Education**

Credits: 1-3 Grading Method: Regular, Audit

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals.

PGCPS II EdD Outreach Program. Registration restricted to program participants.

IH81	Margaret McLaughlin	Seats (Total: 10)
	Contact instructor or department for details.	
	PGCPS III EdD Outreach Program. Registration restricted to program participants.	
IH84	David Imig	Seats (Total: 4)
	Contact instructor or department for details.	
	AA/SMC EdD Program. Registration restricted to program participants. Restriction: Department permission required.	

EDUC898 **Pre-Candidacy Research**

Credits: 2-4 Grading Method: Regular

Pre-Candidacy Research

Contact department for information to register for this course.

EDUC899 **Dissertation of Practice Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Registration required to the extent of 6-9 hours for an Ed.D. Dissertation.

PGCPS II EdD Outreach Program. Registration restricted to program.

Contact department for information to register for this course.

EMBA Executive MBA Program Spring 2022

EMBA616 **Accounting for Senior Management**

Credits: 3 Grading Method: Regular

Restriction: Must be in Executive MBA program.

This course is designed to give senior managers an overview of basic financial and managerial accounting principles and tools with emphasis on those principles and tools they can use to support various managerial decision-making tasks.

Contact department for information to register for this course.

EMBA630 **Data Models and Decisions**

Credits: 3 Grading Method: Regular

Restriction: Must be in Executive MBA program.

To develop probabilistic and statistical concepts, methods and models through examples motivated by real-life data from business and to stress the role that statistics play in the managerial decision making process.

Contact department for information to register for this course.

EMBA678 **Ethical Leadership**

Credits: 2 Grading Method: Regular

This course will explore the following topics; Recognize the scope of managerial agency and the economic, legal and ethical responsibilities to various stakeholders, Conduct elementary ethical analyses of managerial situations using the principal schools of ethical reasoning, Identify the economic and ethical properties of a market mechanism, and the means for addressing the limitations of a market, and Recognize ethical leadership as the exercise of managerial agency in changing existing values and practices.

Contact department for information to register for this course.

EMBA681 **Managerial Economics and Public Policy**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in Executive MBA program.

Basic microeconomic principles used by firms, including supply and demand, elasticities, costs, productivity, pricing, marketing structure and competitive implications of alternative market structures. Market failures and government intervention. Public policy processes affecting business operations.

EM21	Serguey Braguinsky	Seats (Total: 50)
	Meets January 21, 2022 - March 21, 2022	
	Contact instructor or department for details.	

EMBA690 **Strategic Management**

Credits: 2 Grading Method: Regular

Restriction: Must be in Executive MBA program.

Integrative strategic management focusing on strategy formulation and implementation in domestic and global settings. Industry and competitor analysis, industry and firm value chain, leadership, goal setting, organizational structure and culture. Case study approach to top management and organizational problems.

Contact department for information to register for this course.

EMBA757 **Marketing Strategy**

Credits: 3 Grading Method: Regular

Restriction: Must be in Executive MBA program.

A capstone marketing course. Marketing strategies designed to manage products in selected market segments. Topics covered include competitor analysis, buyer analysis, market segments, and product strengths and weaknesses; product related issues are identified and marketing strategies developed, assessed and implemented.

Contact department for information to register for this course.

EMBA758A **Special Topics; Strategic Innovation and Entrepreneurship**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

Contact department for information to register for this course.

EMBA758B **Special Topics; Critical and Integrative Thinking**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

Contact department for information to register for this course.

EMBA758G **Special Topics; Global Strategy**

Credits: 3 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

Contact department for information to register for this course.

EMBA758T **Special Topics; International Business**

Credits: 3 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

Contact department for information to register for this course.

EMBA759 **Independent Study**

(Perm req)

Credits: 1-6 Grading Method: Regular

Independent study for Masters students in Business.

Contact department for information to register for this course.

EMBA788A **Executive Skills Mastery; Critical and Integrative Thinking**

Credits: 1 Grading Method: Regular

This course is designed to focus on the development of the specific set of skills that executives need to successfully perform in today's organizational environment. Students complete assessments which help to target their specific skill level and in the aggregate give instructors clear ideas on the needs of the cohort. The assessments also augment executive coaching, when provided. This is typically registered as a one credit course except when a particular program's cirriculum allocates enough contact hours to all course topics to be covered at a more advanced level.

Contact department for information to register for this course.

EMBA789 **Leadership Mastery**

Credits: 2 Grading Method: Sat-Fail

This course addresses organizational challenges from the CEO or C-level perspective. At this level, the ability to engage ambiguity and chaos effectively is essential. Creating strategy while using a systems approach and understanding how each functional area interacts with the other (with both the short-term and long-term in mind) are of very high importance. The course covers topics that consume the days of senior level leaders in organizations. This is typically registered as a one credit course except when a particular program's cirriculum allocates enough contact hours to all course topics to be covered at a more advanced level.

Contact department for information to register for this course.

EMBA789K **Leadership Mastery**

Credits: 2 Grading Method: Sat-Fail

This course addresses organizational challenges from the CEO or C-level perspective. At this level, the ability to engage ambiguity and chaos effectively is essential. Creating strategy while using a systems approach and understanding how each functional area interacts with the other (with both the short-term and long-term in mind) are of very high importance. The course covers topics that consume the days of senior level leaders in organizations. This is typically registered as a one credit course except when a particular program's cirriculum allocates enough contact hours to all course topics to be covered at a more advanced level.

Contact department for information to register for this course.

EMBA798E **Action Learning Project; ALP-Leading Change**

Credits: 1 Grading Method: Regular

This course is designed to give the student the opportunity to work on a real-time, salient business challenge or issue for the sponsoring organization. This is often the student's employer. Students are encouraged to design projects which extend beyond a single functional area and require them to examine the interaction of multiple functional areas from a systems perspective. Students work in teams for the projects. This allows them to learn from one another, as well as to learn how to work more effectively in teams - especially in a largely virtual environment. This is typically a two credit course when projects are initiated and completed entirely within a single term. It may be a one credit course when projects extend over more than one term.

Contact department for information to register for this course.

EMBA798F **Action Learning Project; ALP-Business Problem Solving**

Credits: 2 Grading Method: Regular

This course is designed to give the student the opportunity to work on a real-time, salient business challenge or issue for the sponsoring organization. This is often the student's employer. Students are encouraged to design projects which extend beyond a single functional area and require them to examine the interaction of multiple functional areas from a systems perspective. Students work in teams for the projects. This allows them to learn from one another, as well as to learn how to work more effectively in teams - especially in a largely virtual environment. This is typically a two credit course when projects are initiated and completed entirely within a single term. It may be a one credit course when projects extend over more than one term.

Contact department for information to register for this course.

ENAE Engineering, Aerospace Spring 2022

ENAE200 **Aerospace Engineering Profession II**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Recommended: ENAE100. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Overview of the engineering profession as it pertains to the role of the engineer in society, professional practice and ethical standards, career development, opportunities and need for lifelong learning, importance of safety and standards, effective written, visual, and oral communications, and the impact of the engineering profession on global issues.

0101	Alison Flatau	Seats (Total: 29)	
	Tu 2:00pm - 3:15pm	ONLINE	
	Tu 11:00am - 11:50am	KEB 2107	Lab

0102	Alison Flatau Tu 2:00pm - 3:15pm W 11:00am - 11:50am	Seats (Total: 41) ONLINE KEB 2111	Lab
0103	Alison Flatau Tu 2:00pm - 3:15pm Th 11:00am - 11:50am	Seats (Total: 29) ONLINE KEB 2107	Lab
0105	Alison Flatau Tu 2:00pm - 3:15pm Tu 12:00pm - 12:50pm	Seats (Total: 41) ONLINE KEB 2111	Lab

ENAE202 **Computing Fundamentals for Engineers**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Credit only granted for: ENAE202 or ENME202.

Introduction to computational tools for the solution of engineering problems. C++ & MATLAB programming including branching and loops, functions, file handling, arrays, and data structures. Students will be introduced to object-oriented programming, basic computing, algorithms, and principles of software engineering.

0101	Robert Sanner MW 1:00pm - 1:50pm Th 3:00pm - 5:00pm	Seats (Total: 25) ONLINE KEB 2107	Lab
0102	Robert Sanner MW 1:00pm - 1:50pm F 3:00pm - 5:00pm	Seats (Total: 25) ONLINE EGR 0312	Lab
0103	Robert Sanner MW 1:00pm - 1:50pm Th 1:00pm - 3:00pm	Seats (Total: 25) ONLINE KEB 2107	Lab
0104	Robert Sanner MW 1:00pm - 1:50pm F 1:00pm - 3:00pm	Seats (Total: 25) ONLINE EGR 0312	Lab
0105	Robert Sanner MW 1:00pm - 1:50pm Th 3:00pm - 5:00pm	Seats (Total: 25) ONLINE EGR 0312	Lab

ENAE324 **Aerospace Structures**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES220. Restriction: Must be in Engineering: Aerospace program.

Analysis of torsion, beam bending, plate bending, buckling and their application to aerospace.

0101	Olivier Bauchau MW 10:00am - 10:50am F 11:00am - 12:50pm	Seats (Total: 80) CSI 2117 KEB 1110	 Discussion
0201	Mary Bowden MW 11:00am - 11:50am F 11:00am - 12:50pm	Seats (Total: 80) ANS 0408 ESJ 1202	 Discussion

ENAE398H **Honors Research Project**

(Perm req)

Credits: 1-3 Grading Method: Regular

Planned sequence of steps in aerospace honors research in which students take three (3) consecutive semesters of this course in partial fulfillment of aerospace engineering honors program requirements. The first semester consists of a series of seminars and meetings with faculty mentors on honors research; two semesters consist of undergraduate honors research project and paper conducted under the direction of an aerospace engineering faculty member to be presented at a conference.

Contact department for information to register for this course.

ENAE404 **Space Flight Dynamics**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ENAE301. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Three-dimensional motion under central fields. Solutions to orbital motion, orbital elements, time elements. Kepler's laws. Orbital maneuvering, rendezvous and station-keeping. Rigid-body attitude dynamics, spacecraft attitude dynamics.

0101	Brent Barbee TuTh 9:30am - 10:45am	Seats (Total: 110) CHE 2110	

ENAE414 **Aerodynamics II**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS271, (MATH240 or MATH461), PHYS270, MATH246, ENAE283, ENES220, ENAE202, MATH241, and ENES232. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department; and junior standing or higher.

Aerodynamics of inviscid incompressible flows. Aerodynamic forces and moments. Fluid statics/buoyancy force. Vorticity, circulation, the stream function and the velocity potential. Bernoulli's and Laplace's equations. Flows in low speed wind tunnels and airspeed measurement. Potential flows involving sources and sinks, doublets, and vortices. Development of the theory of airfoils and wings.

0101	Anya Jones	Seats (Total: 80)
	TuTh 9:30am - 10:45am	KEB 1110

ENAE420 Computational Structural Mechanics

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES220 and MATH241; and must have completed a course in linear algebra. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Introductory of finite element methods for aerospace engineering modeling and analysis; equips students with ability to understand manuals of commercial finite element analysis software.

0101	Sung Lee	Seats (Total: 42)
	TuTh 12:30pm - 1:45pm	EGR 3106

ENAE425 Mechanics of Composite Structures

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH246, ENAE324, ENES220, and MATH241.

Introduction to structures composed of composite materials and their applications in aerospace. In particular, filamentary composite materials are studied. Material types and fabrication techniques, material properties, micromechanics, anisotropic elasticity, introduction to failure concepts.

Restriction: Must be Aerospace Engineering major or receive permission from department.

0101	Norman Wereley, Colleen Murray	Seats (Total: 20)
	MWF 12:00pm - 12:50pm	CHM 2201

ENAE432 **Control of Aerospace Systems**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENAE301 and ENAE283. Restriction: Junior standing or higher; and must be in Engineering: Aerospace program.

An introduction to the feedback control of dynamic systems. Laplace transforms and transfer function techniques; frequency response and Bode diagrams. Stability analysis via root locus and Nyquist techniques. Performance specifications in time and frequency domains, and design of compensation strategies to meet performance goals.

0101	Jared Grauer MWF 9:00am - 9:50am M 1:00pm - 1:50pm	Seats (Total: 40) ONLINE CHM 2201	 Discussion
0102	Jared Grauer MWF 9:00am - 9:50am M 2:00pm - 2:50pm	Seats (Total: 40) ONLINE CHE 2118	 Discussion
0103	Jared Grauer MWF 9:00am - 9:50am W 1:00pm - 1:50pm	Seats (Total: 40) ONLINE CHM 1224	 Discussion
0104	Jared Grauer MWF 9:00am - 9:50am W 1:00pm - 1:50pm	Seats (Total: 40) ONLINE EGR 3106	 Discussion

ENAE450 **Robotics Programming**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENME480 or ENAE380. Restriction: Must be in the Robotics and Autonomous Systems (RAS) minor; or permission of department. Additional information: Students in the Robotics and Autonomous Systems minor should take ENME480 as a prerequisite; Aerospace Engineering students not in the minor should take ENAE380.

Introduces students to the Robot Operating System (ROS) as well as to many of the available tools commonly used in robotics. Lectures focus on theory and structure, whereas laboratory sections will focus on applications and implementations. Students learn how to create software and simulations, interface to sensors and actuators, and integrate control algorithms. The course works through exercises involving a number of autonomous robots (i.e., ground and air vehicles) that students will eventually use in their subsequent RAS minor courses. Topics include: ROS architecture, console commands, ROS packages, simulation environments, visualizations, autonomous navigation, manipulation, and robot vision.

0101	Mumu Xu TuTh 3:30pm - 4:45pm	Seats (Total: 42) PLS 1130	

ENAE464 **Aerospace Engineering Laboratory**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ENAE324, ENAE362, ENAE311, and ENAE432. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Application of fundamental measuring techniques to measurements in aerospace engineering. Includes experiments in aerodynamics, structures, propulsion, flight dynamics and astrodynamics. Correlation of theory with experimental results.

0101	Allen Winkelmann MW 11:00am - 11:50am M 2:00pm - 5:00pm	Seats (Total: 22) JMP 3201 PLS 1146	Lab
0102	Allen Winkelmann MW 11:00am - 11:50am Tu 2:00pm - 5:00pm	Seats (Total: 22) JMP 3201 PLS 1162	Lab
0103	Allen Winkelmann MW 11:00am - 11:50am W 2:00pm - 5:00pm	Seats (Total: 22) JMP 3201 PLS 1172	Lab
0104	Allen Winkelmann MW 11:00am - 11:50am Th 2:00pm - 5:00pm	Seats (Total: 22) JMP 3201 PHY 4221	Lab
0105	Allen Winkelmann MW 11:00am - 11:50am Tu 8:00am - 11:00am	Seats (Total: 22) JMP 3201 EGR 2116	Lab
0201	Young Choi MW 11:00am - 11:50am Th 2:00pm - 5:00pm	Seats (Total: 26) EGR 0108 JMP 1109	Lab
0202	Young Choi MW 11:00am - 11:50am F 2:00pm - 5:00pm	Seats (Total: 26) EGR 0108 EGR 0135	Lab

ENAE467 **Advanced Space Propulsion and Power**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENAE457. Restriction: Permission of Instructor. Jointly offered with: ENAE667. Credit only granted for: ENAE488I, ENAE467, or ENAE667. Formerly: ENAE488I.

Charged particle motion, drift mechanisms, plasma sheaths, creation of plasmas. Representative electrothermal, electrostatic, and electromagnetic propulsion technologies. Power production and direct-drive thrust generation using fusion as time permits.

0101	Ray Sedwick	Seats (Total: 25)
	TuTh 9:30am - 10:45am	CSI 2107

ENAE471 **Aircraft Flight Testing**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ENAE414. Corequisite: ENAE403. Restriction: Must be in Engineering: Aerospace program.

Provides basic instruction to aircraft flight testing and demonstrates need for systematic, well-proven technique to allow for accurate airplane performance. Concepts of aerodynamics, airplane performance, and stability and control. Emphasis on single-engine general aviation type aircraft.

0101	John Tritschler	Seats (Total: 20)
	TuTh 6:30pm - 7:45pm	EGR 1110

ENAE482 **Aeronautical Systems Design**

Credits: 3 Grading Method: Regular, Pass-Fail CORE: CS

Prerequisite: ENAE455, ENAE423, ENAE403, and ENAE481. Restriction: Must be in Engineering: Aerospace program; and senior standing or higher.

Senior capstone design course in the aeronautics track. Introduction of computerized methods for sizing and performance analysis. More comprehensive methods to predict weight, aerodynamics and propulsion system characteristics. Consideration in design disciplines such as vulnerability, maintainability, produceability, etc. Groups of students will complete, brief and report on a major design study to specific requirements.

0101	Dominic Palumbo	Seats (Total: 70)
	MWF 1:00pm - 1:50pm	CSI 2117

0201	Sung Lee MW 12:00pm - 1:15pm *This section is restricted to students on the Design, Build, Fly team and requires permission from the department to enroll.*	Seats (Total: 15) EGR 1110
0301	Vengalattore Nagaraj, James Baeder W 1:00pm - 4:00pm *This section is restricted to students in DOE Challenge and requires permission of instructor to enroll.*	Seats (Total: 10) EGR 3111

ENAE484 **Space Systems Design**

Credits: 3 Grading Method: Regular, Pass-Fail CORE: CS

Prerequisite: ENAE423, ENAE483, ENAE441, and ENAE457. Restriction: Must be in Engineering: Aerospace program.

Senior capstone design course in the space track. Group preliminary design of a space system, including system and subsystem design, configuration control, costing, risk analysis, and programmatic development. Course also emphasizes written and oral engineering communications.

0101	David Akin, Jarred Young TuTh 11:00am - 12:15pm	Seats (Total: 30) JMP 1109
0102	Jarred Young, David Akin TuTh 5:00pm - 6:15pm	Seats (Total: 30) EGR 0135
0103	Jarred Young, David Akin MW 12:00pm - 1:15pm	Seats (Total: 30) CHE 2118
0104	David Akin, Jarred Young MW 3:30pm - 4:45pm	Seats (Total: 30) EGR 2116

ENAE488B **Topics in Aerospace Engineering; Advanced Airbreathing Propulsion**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Technical elective taken with the permission of the student's advisor and instructor. Lecture and conference courses designed to extend the student's understanding of aerospace engineering. Current topics are emphasized.

Cross-listed with ENAE665. Credit only granted for ENAE665 or ENAE488B.

0101	Kenneth Yu	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	JMP 1202

ENAE488C **Topics in Aerospace Engineering; Computational Fluid Dynamics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Technical elective taken with the permission of the student's advisor and instructor. Lecture and conference courses designed to extend the student's understanding of aerospace engineering. Current topics are emphasized.

Prerequisite: ENAE 311; ENAE 202; MATH 240, 246; Computer programming experience either in MATLAB, FORTRAN, C++, or Python Restriction: Must be in Engineering: Aerospace program. An introduction to Computational Fluid Dynamics (CFD), with an emphasis on the application of CFD to predict fluid flow behavior for basic and moderately complex geometries. Introduces students to the entire process of CFD from grid generation, application of CFD solvers, and post-processing using state-of-the-art commercial software. Finite difference and finite volume methods, explicit and implicit schemes, solutions of elliptic, parabolic, and hyperbolic equations. Additionally, students will be provided with a fundamental understanding that will enable them to choose the right CFD tools, evaluate, and CFD results.

0101	Ashish Nedungadi	Seats (Total: 15)
	Th 4:00pm - 6:30pm	ONLINE

ENAE488F **Topics in Aerospace Engineering; Introduction to Aviation for Pilot Training**

Credits: 3

Grading Method: Regular, Pass-Fail

Technical elective taken with the permission of the student's advisor and instructor. Lecture and conference courses designed to extend the student's understanding of aerospace engineering. Current topics are emphasized.

Course not approved for graduate students. Prerequisite: ENAE283 or permission of department. Restriction: Must be in Engineering: Aerospace program. Introduction to how pilots view the design of an aerospace vehicle. Topics include aerodynamic principles, pilot training, flight instruments, flight maneuvers, aeronautical charts and communication, aviation weather, & airplane performance and navigation.

0101	Daniel George	Seats (Total: 40)
	Tu 7:00pm - 9:30pm	EGR 3106

ENAE499 **Elective Research**

(Perm req)

Credits: 3 Grading Method: Regular

Undergraduate research project and paper conducted under the direction of an aerospace engineering faculty member to be presented at a conference or competition.

Contact department for information to register for this course.

ENAE602 **Spacecraft Attitude Dynamics and Control**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENAE404 and ENAE432.

Rigid body rotational dynamics of spacecraft; forced and unforced motion, torques produced by the orbital environment; orbit/attitude coupling; gas jet, momentum wheel, and magnetic torque actuators. Elementary feedback attitude regulators and algorithms for linear and nonlinear attitude tracking.

0101	Sean Semper TuTh 5:30pm - 6:45pm	Seats (Total: 15) ONLINE

ENAE633 **Helicopter Dynamics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENAE631. Or permission of ENGR-Aerospace Engineering department; and permission of instructor.

Flap dynamics. Mathematical methods to solve rotor dynamics problems. Flap-lag-torsion dynamics and identify structural and inertial coupling terms. Overview on rotary wing unsteady aerodynamics. Basic theory of blade aeroelastic stability and ground and air resonance stability, vibration analyses and suppression.

0101	Anubhav Datta TuTh 9:30am - 10:45am	Seats (Total: 10) JMP 2222
SG01	Anubhav Datta TuTh 9:30am - 10:45am	Seats (Total: 5) Location: TBA
SM01	Anubhav Datta TuTh 9:30am - 10:45am	Seats (Total: 5) Location: TBA
TV01	Anubhav Datta TuTh 9:30am - 10:45am	Seats (Total: 15) Location: TBA

ENAE634 **Helicopter Design**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: ENAE631. Or permission of ENGR-Aerospace Engineering department; and permission of instructor.

Principles and practice of the preliminary design of helicopters and similar rotary wing aircrafts. Design trend studies, configuration selection and sizing methods, performance and handling qualities analyses, structural concepts, vibration reduction and noise. Required independent design project conforming to a standard helicopter request for proposal (RFP).

0101	Inderjit Chopra, Vengalattore Nagaraj F 1:00pm - 2:50pm F 3:00pm - 4:50pm	Seats (Total: 15) EGR 1102 Location: TBA	Lab

ENAE635 **Helicopter Stability and Control**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENAE631. Restriction: Permission of ENGR-Aerospace Engineering department.

Advanced dynamics as required to model rotorcraft for flight dynamic studies. Development of helicopter simulation models and specifications of handling qualities. Methods for calculation of trim, poles, frequency response, and free flight response to pilot inputs.

0101	Ondrej Juhasz MW 3:30pm - 4:45pm	Seats (Total: 10) EGR 1110

ENAE646 **Advanced Dynamics of Aerospace Systems**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: ENAE301. Credit only granted for: ENAE788G or ENAE646. Formerly: ENAE788G.

Introduces the principles and methods for formulating and analyzing mathematical models of aerospace systems using Newtonian, Lagrangian, and Hamiltonian formulations of particle and rigid body dynamics. Additional topics include applied dynamical systems, geometric mechanics, and symmetry and reduction.

0101	Olivier Bauchau TuTh 11:00am - 12:15pm	Seats (Total: 18) Location: TBA

ENAE654 **Mechanics of Composite Structures**

Credits: 3 Grading Method: Regular

An introduction to structures composed of composite materials and their applications in aerospace. In particular, filamentary composite materials are studied. Material types and fabrication techniques, material properties, micromechanics, anisotropic elasticity, introduction to failure concepts.

0101	Norman Wereley, Colleen Murray	Seats (Total: 10)
	MWF 12:00pm - 12:50pm	CHM 2201

ENAE665 **Advanced Airbreathing Propulsion**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENAE455; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor.

Advanced treatment of airbreathing propulsion technologies, propulsion system analysis, and engine/airframe integration. Topics will vary, but may include novel engine cycles, advanced gas turbine systems, pulsed systems, and high-speed engines, including scramjets and combined cycle systems.

Cross-listed with ENAE488B. Credit only granted for ENAE665 or ENAE488B.

0101	Kenneth Yu	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	JMP 1202

ENAE667 **Advanced Space Propulsion and Power**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENAE663. Restriction: Permission of instructor.

Advanced treatment of selected space propulsion and power technologies, methods of analysis and performance estimation. Topics will vary each year as time permits, but may include cold gas systems, chemical, nuclear, arcjets, beamed energy, and electric propulsion systems, as well as other advanced concepts.

0101	Ray Sedwick	Seats (Total: 10)
	TuTh 9:30am - 10:45am	CSI 2107

ENAE674 **Aerodynamics of Compressible Fluids**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of ENGR-Aerospace Engineering department.

One-dimensional flow of a perfect compressible fluid. Shock waves. Two-dimensional linearized theory of compressible flow. Two-dimensional transonic and hypersonic flows. Exact solutions of two-dimensional isotropic flow. Linearized theory of three-dimensional potential flow. Exact solution of axially symmetrical potential flow. One-dimensional flow with friction and heat addition.

0101	Christopher Cadou	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	MTH 1308

ENAE676 **Turbulence**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENAE673. Recommended: ENAE674.

Physical and statistical descriptions of turbulence; review of phenomenological theories for turbulent flows; scales of motion; correlations and spectra; homogeneous turbulent flows; inhomogeneous shear flows; turbulent flows in pipes and channels; turbulent boundary layers; theory of methods for turbulent flows (Reynolds stress equations, LES, DES, DNS); experimental methods for turbulence measurements.

0101	Pino Martin	Seats (Total: 20)
	TuTh 9:30am - 10:45am	ONLINE

ENAE685 **Computational Fluid Dynamics II**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENAE684. Restriction: Permission of ENGR-Aerospace Engineering department.

Continuation of ENAE 684. Basic algorithms for the numerical solution of two and three dimensional inviscid and viscous flows. Applications to internal and external flow problems.

0101	James Baeder	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	JMP 2222

ENAE694 **Spacecraft Communications**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Brief overview of satellite orbits. Radio frequency communications, noise, and bandwidth limitations. Link budget analysis. Modulation and multiplexing approaches, multiple access systems. Satellite transponder and Earth station technology.

0101	David Israel	Seats (Total: 15)
	MW 5:00pm - 6:15pm	EGR 2154

ENAE696 **Spacecraft Thermal Design**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Thermal sources in space. Black-body radiation; absorptivity and emissivity; radiative thermal equilibrium. Mutually radiating plates, view angles, and interior conduction. Techniques of spacecraft thermal analysis; approaches to passive and active thermal control.

0101	Eric Silk	Seats (Total: 15)
	TuTh 6:30pm - 7:45pm	EGR 3111

ENAE743 **Applied Nonlinear Control of Aerospace Systems**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENAE641.

Mathematics and methods of nonlinear systems analysis and nonlinear control design, including nonlinear models and phenomena, Lyapunov stability, input-output stability, passivity and frequency domain analysis, nonlinear controllability and observability, feedback linearization, sliding mode control, and integrator backstepping.

0101	Derek Paley	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	EGR 3102

ENAE788F **Selected Topics in Aerospace Engineering; Introduction to Fluid-Solid Interaction**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisites: Permission of instructor. This course will provide an overview on the coupling of fluid flows and flexible structures. The students will be introduced to the different examples of fluid-structure interaction, for example, wing flutter, vortex-induced vibrations, etc., and how to model these FSI problems andmitigate their impacts. Theories related to dimensional analysis, effects of viscosity, fluid-added damping and stiffness, vibrations, buckling as well as Coriolis damping will also be introduced.

0101	Christoph Brehm TuTh 11:00am - 12:15pm	Seats (Total: 10) ONLINE

ENAE788J **Selected Topics in Aerospace Engineering; An Introduction to Large Eddy Simulations**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of instructor. This course will provide students with an introduction to the theory of large-eddy simulations (LES) for incompressible flows. The errors which arise when trying to numerically solve the Navier Stokes equations will be discussed with emphasis on the relevance of the resolution error for LES. A key focus will be on various filtering operations, especially from the point-of-view of LES and their application to the solution of the Navier-Stokes equations. At the end of the course the student will have knowledge about the methods, approaches, and subgrid models used for LES.

0101	Christoph Brehm TuTh 9:30am - 10:45am	Seats (Total: 10) ONLINE

ENAE788L **Selected Topics in Aerospace Engineering; Optimal Estimation of Dynamic Systems**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENAE404 or equivalent, ENAE441 recommended. Optimal estimation or orbit and attitude of spacecraft. Probability concepts in dynamic systems including measurement and modeling uncertainty. Filtering and smoothing for spacecraft navigation and other aerospace applications. Parameter and state estimation applications.

0101	Liam Healy TuTh 9:30am - 10:45am	Seats (Total: 20) CHE 2140

ENAE788Q **Selected Topics in Aerospace Engineering; An Introduction to Hydrodynamic Stability**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENAE673 or permission of instructor. Key concepts of hydrodynamic stability theory: methods of linear stability, normal modes, energy theory of stability, absolute/convective instability, nonlinear perturbation, bifurcation theory, and transition to turbulence. Different instabilities occurring in fluid flows, e.g., Kelvin-Helmholtz, Rayleigh-Taylor, Rayleigh-Bernard, and centrifugal instabilities.

0101	Christoph Brehm TuTh 4:00pm - 5:15pm	Seats (Total: 10) EGR 3111

ENAE788V **Selected Topics in Aerospace Engineering; Motion Planning for Autonomous Systems**

Credits: 3 Grading Method: Regular, Audit

Recommended: completion of mid-level programming course Autonomous systems (e.g., aircraft, vehicles, manipulators, and robots) must plan long-term movement that respects environmental constraints such as obstacles, other actors, and wind; system constraints such as kinematics, dynamics, and fuel; as well as factors such as time and safety. Robust autonomy also requires dealing with environmental changes, new information, and uncertainty. This course provides an overview of such problems and the methods used to solve them.

0101	Michael Otte	Seats (Total: 18)
	TuTh 2:00pm - 3:15pm	EGR 3111

ENAE791 **Launch and Entry Vehicle Design**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENAE601.

Design of aerospace vehicles for atmospheric transit to and from space. Generic formulation of atmospheric flight dynamics. Ballistic and lifting entry trajectories. Estimation of vehicle aerodynamic properties and aerothermodynamic heating. Entry thermal protection design. Trajectory analysis of sounding rockets and orbital launch vehicles. Serial, parallel, and hybrid multistaging schemes, optimal multistaging. Constrained trajectory optimization. Launch vehicle economic and reliability analysis, flight termination systems, sensors and actuators.

0101	David Akin	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	PHY 4222

ENAE799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENAE898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

ENAE899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENBC Biocomputational Engineering Spring 2022

ENBC301 **Introduction to Biocomputational Engineering**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in Biocomputational Engineering major.

Provides practical tools to help Biocomputational Engineering majors to think critically about their goals and career paths and to utilize their major to set their career trajectory.

ESG1	Emily Bailey	Seats (Total: 20)
	Tu 11:00am - 11:50am	BLD4 3335
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENBC311 **Python for Data Analysis**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH241; and minimum grade of C- in BIOE241 or approved prior study in Matlab. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major. Credit only granted for: BIOE489A, BIOE442 or ENBC311.

Provides an introduction to structured programming, computational methods, and data analysis techniques with the goal of building a foundation allowing students to confidently address problems in research and industry. Fundamentals of programming, algorithms, and simulation are covered from a general computer science perspective, while the applied data analysis and visualization portion makes use of the Python SciPy stack.

ESG1	Bardia Yousefi	Seats (Total: 20)
	MW 10:00am - 11:15am	BLD4 3202
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENBC312 **Object Oriented Programming in C++**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major.

Provides a solid foundation for object-oriented programming using the C++ programming language. It introduces fundamental conceptual tools and their implementation of object-oriented design and programming such as: object, type, class, implementation hiding, inheritance, parametric typing, function overloading, polymorphism, source code reusability, and object code reusability. Fundamental principles of object-oriented design and programming are stressed while covering the language details.

ESG1	Syed Ahmed	Seats (Total: 20)
	W 9:00am - 11:30am	BLD4 2335
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENBC322 **Algorithms**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENBC311. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major. Credit only granted for: ENEB355 or ENBC322.

Presents an introduction to the techniques for designing efficient computer algorithms and analyzing their complexity using the Python programming language. Students will gain insight into principles and data-structures useful in algorithm design. General topics include asymptotics, sorting and searching, hashing, algorithm design techniques, graph algorithms, and dynamic programming.

ESG1	Syed Ahmed	Seats (Total: 20)
	M 3:00pm - 5:30pm	BLD4 2335
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENBC342 **Computational Fluid Dynamics and Mass Transfer**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENBC341; and minimum grade of C- in BIOE241 or approved prior study in Matlab; and must have earned a minimum grade of C- or be concurrently enrolled in ENBC331. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major. Credit only granted for: BIOE331 or ENBC342.

Principles and applications of fluid mechanics with a focus on bioengineering topics. Content includes conservation of mass, momentum, and energy, as well as the application of these fundamental relations to hydrostatics, control volume analysis, internal and external flow, and boundary layers. Applications to biological and bioengineering problems such as tissue engineering, bioprocessing, imaging, and drug delivery.

ESG1	Lan Ma	Seats (Total: 20)
	TuTh 10:00am - 11:15am	BLD4 2324
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENBC351 **Quantitative Molecular and Cellular Biology**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI170 or BIOE120. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major.

Provides a quantitative analysis of the behavior of cellular and molecular systems. The focus will be the construction and application of mechanistic models of biomolecular interaction rate processes, which form the foundation of most biological functions. The course will also provide in-depth, practical exploration into data analysis of key bioengineering techniques.

ESG1	Jarred Callura	Seats (Total: 20)
	TuTh 9:30am - 10:45am	BLD4 3335
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENBC352 **Molecular Techniques Laboratory**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- or concurrently enrolled in ENBC351. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major.

Provides students with the opportunity to learn how biology and engineering can synergistically contribute to our understanding of biological and biomedical problems. Students will gain hands-on experience through wet lab experiments in basic techniques relevant to bioengineering.

ESG1	Jarred Callura	Seats (Total: 20)	
	Tu 1:00pm - 1:50pm	BLD4 2324	
	Th 12:00pm - 3:00pm	BLD4 4322	Lab
	Restricted to Biocomputational Engineering students at Shady Grove.		

ENBC403 **Research Methods in Biological Data Mining**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- or concurrently enrolled in ENBC311. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major.

An introduction to the fundamentals of conducting research projects utilizing a general understanding of quantitative/qualitative research, clinical data analysis, and multiple examples of different research approaches in the biological phenomenon. The course includes an overview of design strategies to implement various data mining technologies.

ESG1	Bardia Yousefi	Seats (Total: 20)
	MW 1:00pm - 2:15pm	BLD4 2324
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENCE Engineering, Civil Spring 2022

ENCE100 **Introduction to Civil and Environmental Engineering**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

An overview of the department of Civil and Environment Engineering. Students are introduced to the undergraduate curriculum and will be exposed to other undergraduate and graduate students at various points in their program. The course blends panel presentations by seniors and graduate students, faculty and practitioners with a project and book review to be performed by the students.

0101	Natasha Andrade	Seats (Total: 100)
	W 1:00pm - 1:50pm	CHE 2108

ENCE200 **Civil Engineering Graphics for Design and Construction**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES100, MATH141, and ENES102; and permission of ENGR-Civil & Environmental Engineering department.

Introduction to the basic principles and fundamentals of civil design, plan interpretation, and plan creation. Development of the knowledge and skills to analyze existing sites, environmental features, and characteristics used to develop a site properly. Introduction of the use of Computer-Aided Drafting (CAD) software in the context of civil and environmental engineering design and applications.

0101	Frank White	Seats (Total: 37)
	MW 2:00pm - 3:15pm	EGR 1156
0201	Frank White	Seats (Total: 37)
	MW 3:30pm - 4:45pm	EGR 1156

ENCE201 **Engineering Information Processing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ENES220 and MATH241; and permission of ENGR-Civil & Environmental Engineering department. Corequisite: MATH246. Credit only granted for: ENCE201 or ENCE203.

Exploration of algorithms for solving problems in several important areas of numerical computing: roots of equations; matrix algebra and the systems of linear equations; function approximation, numerical differentiation and integration; and ordinary differential equations. Issues of solution accuracy, robustness, and efficiency are also considered. Numerical techniques are presented in the context of engineering applications, and example problems are solved using a variety of computer-based tools (primarily MATLAB).

0101	Peter Chang MWF 9:00am - 9:50am	Seats (Total: 35) EGR 3106	
0201	Peter Chang MWF 2:00pm - 2:50pm	Seats (Total: 35) EGR 2154	

ENCE205 **Biology for Civil and Environmental Engineers**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH140 or equivalent. Restriction: Must be in the Civil Engineering program; or permission of the Civil and Environmental Engineering Department. Credit only granted for: BIOE120 or ENCE205.

Introduction to the functions and interactions of biological systems in civil and environmental engineering systems in the context of societal issues. The course includes an introduction to biotechnological principles from a quantitative perspective, modern experimental techniques in biotechnology and methods of data analysis. Roles for civil and environmental engineers in society seen from a biotechnological perspective, and the role of biotechnology in civil and environmental engineering will be elucidated. The role of biotechnology in other engineering disciplines will also be discussed.

0101	Birthe Kjellerup W 2:00pm - 3:50pm M 9:00am - 12:00pm	Seats (Total: 12) Location: TBA EGR 0136	 Lab
0201	Birthe Kjellerup W 2:00pm - 3:50pm M 3:00pm - 6:00pm	Seats (Total: 12) Location: TBA EGR 0136	 Lab

ENCE215 **Engineering for Sustainability**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM135; and permission of ENGR-Civil & Environmental Engineering department.

Engineers have a key role to play in planning, designing, building, and ensuring a sustainable future. In this class, a problem-based approach is used to examine fundamentally-based analyses and approaches for engineering as sustainable society, with a focus on sustainable use of energy and materials, sustainable infrastructure solutions, atmospheric sustainability and sustainable water supply, and human population growth and resource consumption and its implications for sustainability.

0101	Natasha Andrade TuTh 8:00am - 9:15am	Seats (Total: 24) ESJ B0322	
0201	Natasha Andrade TuTh 9:30am - 10:45am	Seats (Total: 24) ESJ B0322	
0301	Natasha Andrade TuTh 2:00pm - 3:15pm	Seats (Total: 24) AJC 2134	

ENCE300 **Fundamentals of Engineering Materials**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES220; and permission of ENGR-Civil & Environmental Engineering department.

Behavior, physical, mechanical and chemical properties, design and performance of civil engineering materials, including aggregates, cement, concrete, asphalt binders and mixtures, plastics and geosynthetics, timber, metals and alloys. Modified and advanced highway materials (polymer and rubber modified mixtures, high performance concrete, composites, smart materials). Laboratory testing with hands-on experience on aggregates, Portland cement concrete, asphalt mixtures, timber and metals as per SUPERAVE, ACI design methods, and ASTM standards and specifications.

0101	Dimitrios Goulias Tu 12:00pm - 1:40pm Th 10:30am - 12:30pm *Alternating face-to-face/online meeting. See instructor for details.*	Seats (Total: 18) EGL 0120 EGL 0120	 Lab
0102	Dimitrios Goulias Tu 12:00pm - 1:40pm Th 12:30pm - 2:30pm *Alternating face-to-face/online meeting. See instructor for details.*	Seats (Total: 18) EGL 0120 EGL 0120	 Lab

0201	Dimitrios Goulias	Seats (Total: 18)	
	Tu 1:50pm - 3:30pm Th 2:30pm - 4:30pm	EGL 0120 EGL 0120	Lab
	Alternating face-to-face/online meeting. See instructor for details.		
0202	Dimitrios Goulias	Seats (Total: 18)	
	Tu 1:50pm - 3:30pm Th 4:30pm - 6:30pm	EGL 0120 EGL 0120	Lab
	Alternating face-to-face/online meeting. See instructor for details.		

ENCE302 **Probability and Statistics for Civil and Environmental Engineers**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: MATH246 and ENCE201; and permission of ENGR-Civil & Environmental Engineering department.

Statistics is the science of data. Civil Engineers must often make decisions based on incomplete, variable or uncertain information. In addition, modern methods of design and analysis need to account for variability in natural, engineered and human systems. After successful completion of this class, a student should have facility and familiarity with established basic techniques for managing data, modeling variability and uncertainty, communicating about data and decisions, and supporting or defending a decision or judgment based on uncertain or incomplete data.

0102	Allison Reilly, Michelle Bensi	Seats (Total: 40)
	MWF 2:00pm - 2:50pm	ITV 1100

ENCE305 **Fundamentals of Engineering Fluids**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES220, PHYS260, and PHYS261; and permission of ENGR-Civil & Environmental Engineering department. Credit only granted for: BIOE331, ENCE305, ENFP300, or ENME331.

The theoretical bases for fluid statics and dynamics, including the conservation of mass, energy and momentum. Modeling of hydraulic systems are introduced. Emphasis on pipe flow and open-channel hydraulics, with real-world applications.

0201	Barton Forman	Seats (Total: 43)
	MWF 10:00am - 10:50am	EGR 3106

0301	Michael Galczynski MWF 10:00am - 10:50am	Seats (Total: 42) AJC 2132

ENCE310 **Introduction to Environmental Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS260 and ENCE215; and permission of ENGR-Civil & Environmental Engineering department.

Introduction to the physical, chemical and biological systems relating to the quality of water, land and air environments. Fundamental principles will be emphasized, current environmental pollution problems will be examined and methods of pollution abatement discussed.

0101	Guangbin Li, Marya Anderson TuTh 2:00pm - 3:15pm	Seats (Total: 30) HBK 0123

ENCE320 **Introduction to Project Management**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department. Restriction: Must be in a major in ENGR-A James Clark School of Engineering. Credit only granted for: BMGT485, ENCE320, ENCE325, INST408O or INST453.

Principles and techniques of managing engineering projects from the initiation, through planning, execution, monitoring & control, then finally closeout.

0101	Miroslaw Skibniewski Th 5:00pm - 7:30pm *Click here for syllabus.*	Seats (Total: 100) ESJ 2204

ENCE325 **Introduction to Construction Project Management**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in a major in ARCH-School of Architecture, Planning, & Preservation; or must be in the Construction Project Management minor. And permission of ENGR-Civil & Environmental Engineering department. Credit only granted for: BMGT485, ENCE320, ENCE325, INST408O or INST453.

Learn the basic topics in sourcing, planning, financing, designing, contracting, constructing and operating buildings and other facilities in the built infrastructure. Topics include construction economics, design constructability reviews, construction process planning, contracts and procurement strategies, project scheduling and resource utilization, site layout planning, project cost and quality controls, temporary structures, environmental sustainability, project handover procedures, facility operation and management, IT-based tools for construction project and resource management.

0101	Stephen Wooldridge	Seats (Total: 60)
	Th 5:00pm - 7:30pm	PLS 1130

ENCE340 **Fundamentals of Geotechnical Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES220; and permission of ENGR-Civil & Environmental Engineering department.

Introductory study of soils in civil engineering. Soil origin, phase relationships and classification schemes. Soil hydraulics: capillary, effective stress, permeability and seepage considerations. Basic stress distribution theories and soil consolidation-settlement analysis. Integration of shear strength evaluation with slope stability analysis. If time permits, topics such as applications in geoenvironmental engineering will be covered.

0101	Ahmet Aydilek	Seats (Total: 55)
	TuTh 11:00am - 12:15pm	EGR 0108

ENCE353 **Introduction to Structural Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department; and (MATH246 and ENES220).

The basic tools of structural analysis and design. Design loads. Equilibrium of external and internal forces. Shear and moment diagrams in beams and frames. Truss analysis. Influence line diagrams. The slope-deflection method and method of consistent deformation. Matrix stiffness methods for beams, frames and trusses.

0101	Mark Austin	Seats (Total: 62)
	MWF 9:00am - 9:50am	EGR 0108

ENCE360 **Analysis of Civil Engineering Systems**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE201 and MATH140; and permission of ENGR-Civil & Environmental Engineering department.

Introduction to systems approach and systems analysis in civil and environmental engineering. Introduction to systems analysis tools that facilitate engineering management decision making including optimization and computer simulation. Introduction to linear and nonlinear mathematical optimization including linear and integer programming, elementary nonlinear programming and dynamic programming.

0101	Ali Haghani TuTh 9:30am - 10:45am	Seats (Total: 36) EGR 1156
0102	Ali Haghani TuTh 11:00am - 12:15pm	Seats (Total: 36) EGR 1156

ENCE370 **Introduction to Transportation Engineering and Planning**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE201, PHYS260, and PHYS261; and permission of ENGR-Civil & Environmental Engineering department.

Engineering problems of transportation by highways, airways, pipelines, waterways, and railways. Transportation modes and technologies, vehicle dynamics, basic facility design, traffic stream models, capacity analysis, transportation planning, evaluation and choice, and network analysis.

0101	Cinzia Cirillo MWF 1:00pm - 1:50pm	Seats (Total: 48) KEB 1200

ENCE402 **Simulation and Design of Experiments for Engineers**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE302; and permission of ENGR-Civil & Environmental Engineering department.

Review of statistics and hypothesis testing, sample design and design of experiments, generation of discrete and continuous distributions and their applications. Introduction of simulation languages and simulation of discrete and continuous engineering systems. Output analysis, model validation and sensitivity and reliability analysis.

0101	David Lovell TuTh 11:00am - 12:15pm	Seats (Total: 40) CHE 2118

ENCE411 **Environmental Engineering Science**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE310; and permission of ENGR-Civil & Environmental Engineering department.

Introduces the analytical techniques available to assess performance of engineering processes as they relate to water, soil, and air treatment and quality. The basic principles of environmental management, economics of waste treatment, by-product reutilization, and energy cycles are introduced and discussed. Alternative technologies are introduced and evaluated mostly by assessing their potential to reduce waste, minimize energy use, and promote sustainability. Students' activities include, a weekly lab to provide hands-on experience with environmental quality measurements and treatment techniques; on-site visits to regional industries that undertake sustainable practices; and a final research project where experimental design and laboratory techniques are used to assess interactions between technologies and natural systems and their potential for reducing environmental impacts.

0101	Shahrzad Saffari Ghandehari, Zijiang Yang	Seats (Total: 7)	
	TuTh 11:00am - 11:50am W 10:00am - 1:00pm	EGR 1110 EGR 0136	Lab
0102	Zijiang Yang, Shahrzad Saffari Ghandehari	Seats (Total: 7)	
	TuTh 11:00am - 11:50am W 2:00pm - 5:00pm	EGR 1110 EGR 0136	Lab

ENCE412 **Environmental Engineering Unit Operations**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE305 and ENCE310; and permission of ENGR-Civil & Environmental Engineering department.

Examination of unit operations and processes encountered in environmental engineering field. Fundamental principles learned from previous classes will be applied into the design and operation of unit operations and processes, particularly in the area of water and wastewater treatment. Similar processes will be applied to air pollution control, solid waste disposal and hazardous waste treatment.

0101	Allen Davis	Seats (Total: 43)	
	TuTh 2:00pm - 3:15pm	EGR 3106	

ENCE421 **Legal Aspects of Architectural and Engineering Practice**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in the Construction Project Management minor; or must be in the Project Management Minor. And permission of ENGR-Civil & Environmental Engineering department.

Learn the basic structure of the US legal system and court procedures and legal principles relevant to architectural and engineering design and construction contracts including principles of ethical, legal and professional conduct of engineers and architects.Topics include: contracts for design and construction, sales and warranties, torts and product liability, business agency and government agencies, professional liability of architects and engineers, labor laws, expert testimony, mediation and arbitration, tangible property including real estate, intellectual property including trademarks, patents and copyrights, insurance and sureties.

0101	Miroslaw Skibniewski	Seats (Total: 60)
	M 5:00pm - 7:30pm	AJC 2121

ENCE422 **Project Cost Accounting and Economics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in the Construction Project Management Minor; or must be in the Project Management Minor.

Learn: the fundamentals of accounting; project cost accounting principles as they apply to project management; project cost accounting; and the fundamentals of engineering economics.Topics include: project feasibility analysis; reading and analyzing financial statements; cash management; cash flow analysis; depreciation and taxes; and impact on profitability; the principles of activity based costing; net present value analysis; the framework for project performance measurement, cost performance indices, and earned value analysis.

A Partnership for Action Learning in Sustainability (PALS) course where students apply classroom learning to actual community needs.

0101	Qingbin Cui	Seats (Total: 75)
	W 4:00pm - 6:40pm	JMP 3201

ENCE423 **Project Planning, Estimating & Scheduling**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in the Construction Project Management Minor; or must be in the Project Management Minor. And permission of ENGR-Civil & Environmental Engineering department.

Learn the fundamentals of project planning, estimating, and scheduling. Understand the concepts of planning; to reduce uncertainty, improve efficiency of the operation, to set and meet objectives, and to provide a basis for monitoring and controlling the work. Be introduced to: the concepts of resource definition, assignment and management, and; the basics of project estimating (pricing) methods including global pricing strategies, types of estimates, pricing processes, overhead and profit, and project financing.Learn the basics of project scheduling including; bar charts, network-based methodologies, and linear scheduling techniques. Emphasis is placed on Critical Path Method (CPM) scheduling, a network based methodology. Be exposed to the use of scheduling software and will actually develop a CPM schedule for an actual construction project as part of a semester project.

0101	Kenneth O'Connell	Seats (Total: 90)
	Tu 5:00pm - 7:30pm	KEB 1110

ENCE424 **Communication for Project Managers**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in the Construction Project Management minor; or must be in the Project Management minor. Jointly offered with: ENCE614. Credit only granted for: ENCE424 or ENCE614.

Learn the fundamentals of communications for project managers. Emphasis is on interpersonal and group communications; through voice, electronic, and written messages; project cycle and reports and presentations during this cycle; and communications for employment.

0101	Shana Webster-Trotman	Seats (Total: 30)
	Tu 5:00pm - 7:30pm	AJC 2119

ENCE426 **Construction Documentation and BIM Applications in Engineering and Construction**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in the Construction Project Management Minor; or must be in the Project Management Minor.

Learn the basics of construction documentation methods, with particular emphasis on Building Information Modeling (BIM). Topics include: the fundamentals of assembly, coordination, and maintenance of construction documents and implementation of BIM techniques in the design and construction processes, and; a review of Autodesk, Revit, and Navisworks and other leading BIM software. Lectures from project management faculty supplemented by guest lecturers from the construction industry.

0101	Matthew Gladding W 5:00pm - 7:30pm	Seats (Total: 41) EGR 1156	

ENCE431 **Hydrologic Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE305; and permission of ENGR-Civil & Environmental Engineering department.

An introduction to basic principles of hydrologic science including the hydrologic cycle, rainfall, surface runoff and streamflow. Special emphasis is placed on hydrologic engineering design of stormwater management and flood control facilities. Design projects are used to illustrate design practices.

0101	Kaye Brubaker MWF 9:00am - 9:50am	Seats (Total: 43) EGR 1104	

ENCE444 **Experimental Methods in Geotechnical Structural Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE353 and ENCE340; and permission of ENGR-Civil & Environmental Engineering department.

In the geotechnical engineering part of the course, major soils testing and their interpretation including classification, compaction, strength, and compressibility will be undertaken. The structural engineering part of this course covers test planning, loading apparatus, instrumentation, data acquisition and data analysis, as well as basic aspects of structural testing techniques and shake-table test.

0101	Mohamed Aggour, Yunfeng Zhang Tu 2:00pm - 2:50pm W 1:00pm - 4:00pm	Seats (Total: 20) EGR 0135 LEF 1222	 Lab
0201	Mohamed Aggour, Yunfeng Zhang Tu 2:00pm - 2:50pm W 1:00pm - 4:00pm	Seats (Total: 20) EGR 2116 EGR 1102	 Lab

ENCE455 **Design of Steel Structures**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE353; and permission of ENGR-Civil & Environmental Engineering department.

Behavior and design of members subjected to fatigue, and combined bending and compression; plate girders, composite beams, open-web joists and connections. Methods of allowable stress design, and load and resistance factor design. Elements of plastic analysis and design. Framing systems and loads for industrial buildings and bridges.

0101	Peter Chang TuTh 12:30pm - 1:45pm	Seats (Total: 35) EGR 1104	

ENCE466 **Design of Civil Engineering Systems**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail CORE: CS

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department. Restriction: Senior standing. Additional information: Must be taken in the semester in which the student graduates.

A major civil engineering design experience that emphasizes development of student creativity, development and use of design methodologies, evaluation of alternate solutions, feasibility considerations, and detailed system descriptions. Realistic design constraints including economic factors, safety, aesthetics, and reliability will be imposed. Students will work in design project groups and be required to exercise oral and written communication skills.

0101	Russell Anderson Tu 3:30pm - 4:45pm Th 3:30pm - 4:45pm	Seats (Total: 40) EGR 1202 EGR 1156	 Discussion
0102	Russell Anderson Tu 3:30pm - 4:45pm Th 2:00pm - 3:15pm	Seats (Total: 40) EGR 1202 EGR 1156	 Discussion
0103	Russell Anderson Tu 3:30pm - 4:45pm Th 5:00pm - 6:15pm	Seats (Total: 40) EGR 1202 EGR 1156	 Discussion

ENCE472 **Transportation Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE302 and ENCE370; and permission of ENGR-Civil & Environmental Engineering department.

Transportation engineering concepts including transportation systems analysis, airport systems, airline and airport operations, marine transportation and urban public transportation systems.

0101	Paul Schonfeld	Seats (Total: 35)
	TuTh 12:30pm - 1:45pm	CHE 2118

ENCE489 **Special Problems in Civil Engineering**

Credits: 1-4 Grading Method: Regular, Pass-Fail, Audit

A course arranged to meet the needs of exceptionally well prepared students for study in a particular field of civil engineering.

Contact department for information to register for this course.

ENCE489G **Special Problems in Civil Engineering; Sustainability and Infrastructure**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A course arranged to meet the needs of exceptionally well prepared students for study in a particular field of civil engineering.

Contact department for information to register for this course.

ENCE602 **Project Procurement Management**

Credits: 3 Grading Method: Regular, Audit

Fundamental concepts and techniques for project acquisition and procurement are presented. Students are introduced to the PMBOK Guide six-step procurement process and expected to develop an in-depth understanding of project evaluation, planning, financing, contracting, negotiation, and procurement execution. It will also cover emerging methods, principles, and practices in infrastructure project procurement, including Public-Private Partnerships, Carbon project procurement, and Clean Development Mechanism.

PM01	Qingbin Cui	Seats (Total: 25)
	Class time/details on ELMs	ONLINE
	Weekly Video Conference: Wednesday 8:00-9:00PM.	

ENCE603 **Bayesian Data Analytics for Engineering**

Credits: 3 Grading Method: Regular, Audit

Recommended: ENCE627.

Introduction to identifying, analyzing, assessing, and managing data inherent to engineering projects. Includes: statistical principles, concepts, and models; decision science aspects of data systems; Bayesian methods; measurement theory; subjective aspects of statistics and data appraisal. Examples are drawn from software development, systems integration, and other large engineering projects. Covers statistical basics, subjective probability, Bayesian data analysis, introduction to decision theory, Monte Carlo simulation, value of information, and risk-based decision making from data.

PM01	Gregory Baecher	Seats (Total: 30)
	Class time/details on ELMs	ONLINE
	Weekly video conferences: Thursday 7:00am-8:00am or Thursday 6:00pm-7:00pm	

ENCE604 **Sustainabilty Fundamentals for Project Managers**

Credits: 3 Grading Method: Regular, Audit

Addresses the fundamentals of sustainability for project managers including best practices of modern sustainable construction and project management. Commercial and residential buildings consume about 40 percent of the energy used in the United States. The course therefore emphasizes the application of the sustainable development goals to the built environment, including the practical operational aspects of sustainable facility project management and sustainable construction by contractors. The course also will cover the fundamental concepts of sustainable project development and the move towards economic prosperity, environmental protection, and social equity, taking all three dimensions into account to achieve sustainability. Project managers need to take responsibility for more sustainable development of organizations, facilities, and projects.

PM01	Neil Schulman	Seats (Total: 30)
	Class time/details on ELMs	ONLINE
	Weekly videoconference: Mondays 1:00-3:40PM.	

ENCE607 **Mastering Agile Project Management**

Credits: 3 Grading Method: Regular, Audit

Learn how and why Agile project management is the fastest growing and most successful project management philosophy today. Learn the mechanics of how to design and facilitate projects using pure Agile Scrum and Lean Kanban techniques; The tradeoffs of using hybrid techniques such as Lean Startup, Scaled Agile for the Enterprise, and Disciplined Agile Development. Then go beyond these frameworks to the science beneath with the essential principles to ensure you get the best benefits of Agile project management methods.

0101	John Johnson	Seats (Total: 25)
	Th 5:00pm - 7:40pm	AJC 2119

ENCE614 **Communications for Project Managers**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be enrolled in the A. James Clark School of Engineering or the School of Architecture. Jointly offered with: ENCE424. Credit only granted for: ENCE424 or ENCE614.

Learn the fundamentals of communications for project managers. Emphasis is on interpersonal and group communications; through voice, electronic, and written messages; project cycle and reports and presentations during this cycle; and communications for employment.

0101	Shana Webster-Trotman	Seats (Total: 5)
	Tu 5:00pm - 7:30pm	AJC 2119

ENCE620 **Risk Analysis for Engineering**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Sources of hazards, definition of risk, system analysis, functional modeling and analysis techniques, probabilistic risk assessment procedure, risk methods, risk acceptance, assessment of failure likelihood, consequence assessment, risk benefit assessment, uncertainty surces and types, modeling uncertainty, risk analysis and decision making under uncertainty, collection of data, expert-opinion elicitation, human-machine interface and human factors engineering.

0101	Bilal Ayyub	Seats (Total: 20)
	MW 2:00pm - 3:15pm	CHE 2140

ENCE627 **Project Risk Management**

Credits: 3 Grading Method: Regular

Restriction: Must not have completed ENCE627.

Introduction to identifying, analyzing, assessing, and managing risks inherent to engineering projects. Includes: probability modeling, choice and value theory, schedule and cost risk, risk mitigation and transfer, and contract considerations of project risk. Examples are drawn from construction, software development, systems integration, and other large engineering projects; and cover probability basics, subjective probability, statistical data analysis, introduction to decision theory, Monte Carlo simulation, value of information, and risk-based decision making.

0101	Gregory Baecher	Seats (Total: 30)
	F 8:00am - 10:40am	JMP 2216

ENCE631 **Hydrologic Analysis and Nonpoint Pollution Models**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

A detailed analysis of the physical processes controlling the spatial distribution of runoff and constituent transport during rainfall and snowmelt events. Emphasis is on developing an understanding of the processes and translating this understanding into practical models that can be used for runoff simulation, stormwater management, and environmental impact assessment.

0101	Kaye Brubaker	Seats (Total: 12)
	MW 5:00pm - 6:15pm	EGR 1110

ENCE647 Slope Stability and Seepage

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENCE340. Credit only granted for: ENCE489A, ENCE647, or ENCE688A. Formerly: ENCE688A.

Theoretical and practical aspects of seepage effects, and groundwater flow, review of shear strength principles, flow through porous media, hydraulic conductivity, flow nets, determination of water pressure, seepage forces and quantity of seepage, laboratory and field tests for shear strength, infinite slopes, block analysis, method of slices, seismic analysis of slopes, effective and total stress analysis, computer program for slope stability analysis, slope stability problems in waste disposal, construction excavations, reinforced embankments, embankments on soft ground.

0101	Ahmet Aydilek	Seats (Total: 15)
	Tu 5:00pm - 7:30pm	EGR 1102

ENCE662 Introduction to Project Management

Credits: 3

Grading Method: Regular, Audit

Introduction to project management including: overview and concepts of project management (principles, body of knowledge, strategies); planning successful projects (defining, specifying, delivery options, scheduling, budgeting); implementing (organizing the team, work assignments, team building, effective leadership); executing (performance measurement, maintaining the schedule, adjustments/mid-course corrections, record keeping, status reporting, communications, managing conflict, time management); and closeout(performance measurement, maintaining the schedule, adjustments/mid-course corrections, record keeping, status reporting, communications, managing conflict, time management).

PM01	Gregory Baecher	Seats (Total: 35)
	Class time/details on ELMs	ONLINE
	Weekly video conferencing: Thursdays 7:00-8:00am.	

ENCE664 **Legal Aspects of Engineering Design and Construction**

Credits: 3 Grading Method: Regular, Audit

Examines ways in which the legal system affects the design and construction process. Focuses on contract types and the relationships between the parties in different delivery systems. Covers basics of procurement protocols along with negotiating techniques and strategies. Topics include contract law, the relationships between the parties, tort and negligence law, and the statutory principles affecting construction.

0101	Thomas Barham, Thomas Powell, Mark Groff W 4:00pm - 6:40pm	Seats (Total: 49) JMP 2121
PM01	Mark Groff, Thomas Powell W 4:00pm - 6:40pm	Seats (Total: 50) ONLINE

ENCE665 **Management of Project Teams**

Credits: 3 Grading Method: Regular, Audit

Experience has shown that really excellent project managers are not only technically competent but that they have above average skills in human relations and communications. The course will prepare project managers to optimize the utilization of their most important resource: people. Relying primarily on a wide range of research and experience in the Project Team, this course will help guide project managers in building the other skills needed to be truly successful in the competitive Project Team.

PM01	Jocelyn Davis Class time/details on ELMs *Weekly videoconference: Mondays 4:30-6:00pm.*	Seats (Total: 25) ONLINE

ENCE673 **Urban Transportation**

Credits: 3 Grading Method: Regular, Audit

The contempory methodology of urban transportation planning. The urban transportation planning process, interdependence between the urban transportation system and the activity system, urban travel demand models, evaluation of urban transportation alternatives and their implementation.

0101	Kaveh Farokhi Sadabadi TuTh 12:30pm - 1:45pm	Seats (Total: 25) EGR 1102

ENCE677 **OR Models for Transportation Systems Analysis**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Fundamental skills and concepts of the quantitative techniques of operations research including: mathematical modeling, linear programming, integer programming, network optimization (shortest paths, minimum spanning trees, minimum cost network flows, maximum flows), heuristics, and basics of probabilistic modeling. Emphasis on the application of these techniques to problems arising in transportation.

0101	Ali Haghani	Seats (Total: 15)
	M 1:00pm - 3:30pm	ONLINE

ENCE688C **Advanced Topics in Civil Engineering; Traffic Signal Control**

Credits: 3

Grading Method: Regular, Audit

Advanced topics selected by the faculty from the current literature of civil engineering to suit the needs and background of students. May be taken for repeated credit when identified by topic title.

This course will introduce several key methodologies and models for design of traffic signal for urban networks, including isolated intersection arterial signal progression, multi-modal traffic signal progression, a nd network decomposition. Both the pre-timed signals with off-line data and real-time adaptive controls with various surveillance systems will be covered in the topics of system implementation. Students for this course are expected to have the traffic engineering background or some exposure on Traffic flow theory.

0101	Gang-Len Chang	Seats (Total: 20)
	Th 5:00pm - 7:30pm	EGR 1104

ENCE688E **Advanced Topics in Civil Engineering; Bioremediation**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advanced topics selected by the faculty from the current literature of civil engineering to suit the needs and background of students. May be taken for repeated credit when identified by topic title.

Introduction to microbiological and engineering fundamentals of bioremediation. Coverage will emphasize current and emerging technologies for major classes of environmental contaminants and contaminated site characteristics; relevant microbial ecology, biochemistry and physiology; site data needed to assess the feasibility of the bioremediation option; design and operation of engineered bioremediation systems, including reactor and in situ approaches; monitoring methods for evaluation the success of bioremediation projects; technical evaluation of selected case studies.

0101	Guangbin Li	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	JMP 1109

ENCE688J **Advanced Topics in Civil Engineering; Data Analysis in the Built Environment: An Introduction to R**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty from the current literature of civil engineering to suit the needs and background of students. May be taken for repeated credit when identified by topic title.

This is an interdisciplinary course focusing on building strong data science skills through application. Students will learn various modes ofdata acquisition, including how to bring in data and restructure it for analysis. In addition, students will learn how to examine data visually and how to conduct exploratory data analysis. Students will also learn the basics of code reproducibility, techniques for managing, storing andaccessing large data streams, and will be introduced to modern statistical modeling. This is an applied course designed to enhance students' computing and data analytic skills. Students will be expected to be active learners and to develop a hands on appreciation ofworking with large datasets in an interdisciplinary setting. Students are assumed to have little no R experience.

0101	Deb Niemeier	Seats (Total: 30)
	W 2:00pm - 4:40pm	JMP 1109

ENCE688P **Advanced Topics in Civil Engineering; Data Mining and Machine Learning for the Built Envrionment**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty from the current literature of civil engineering to suit the needs and background of students. May be taken for repeated credit when identified by topic title.

This course is a hands-on introduction to tools and techniques for data mining and machine learning analysis of data from the built environment. Students will learn how to write and compile simple software programs in Python and Java (no prior experience required), and then work step-by-step toward the design of software solutions using objects, data structures and software patterns. Students will be introduced to a spectrum of software tools, basic methods, and algorithms for data mining (e.g., Weka) and machine learning analysis of data (e.g., with DL4J and TensorFlow). The semester will conclude with completion and presentation of a project.

0101	Mark Austin	Seats (Total: 15)
	MW 5:00pm - 6:15pm	ONLINE

ENCE688Y **Advanced Topics in Civil Engineering; Research Methods Seminar**

Credits: 1

Grading Method: Regular, Audit

Advanced topics selected by the faculty from the current literature of civil engineering to suit the needs and background of students. May be taken for repeated credit when identified by topic title.

Intended for PhD and MSc students enrolled in the Project Management Program. It is strongly recommended for PhD candidates to develop their re-search topic and build strong research capability. The course provides a sound under-standing of the enterprise of engineering research, from selecting a thesis topic, to the development of a research proposal, to planning and executing a research plan, to writ-ing a dissertation and publishable articles. Students will review published research re -ports, conduct a literature survey, and write a preliminaryresearch proposal. Students will carry out assignments involving design of small experiments, and learn how to statistically analyze data and report results. The course comprises lectures from PM faculty and guest lecturers. See instructor for details pertaining to in-person class meetings.

0101	Gregory Baecher, Qingbin Cui F 11:00am - 11:50am	Seats (Total: 25) EGR 1102	

ENCE688Z **Advanced Topics in Civil Engineering; Environmental Engineering Science**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Advanced topics selected by the faculty from the current literature of civil engineering to suit the needs and background of students. May be taken for repeated credit when identified by topic title.

0101	Zijiang Yang TuTh 11:00am - 11:50am W 10:00am - 1:00pm	Seats (Total: 3) EGR 1110 EGR 0136	 Lab
0102	Zijiang Yang TuTh 11:00am - 11:50am W 2:00pm - 5:00pm	Seats (Total: 3) EGR 1110 EGR 0136	 Lab

ENCE689 **Seminar**

Credits: 1-16

Grading Method: Regular, Audit

Majors only. Other majors require permission of department.

Contact department for information to register for this course.

ENCE710 **Steel Structures I**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Formerly: ENCE656.

Moment connections of beams and columns. Wind bracing connections. Plate girders. Floor systems for buildings. Strengthening of beams and trusses. Corrosion control. Fatigue and fracture.

0101	Yunfeng Zhang	Seats (Total: 30)
	W 5:00pm - 7:30pm	EGR 3114

ENCE743 **Soil Dynamics and Earthquake Engineering**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: ENCE642 or ENCE743. Formerly: ENCE642.

Review of theory of vibration and wave propagation in elastic media. Field and laboratory methods for determining dynamic soil properties. Analysis and design of soil-foundation systems subjected to machinery generated vibrations and methods of foundation isolation. Earthquake causes, magnitude and intensity, seismic hazard evaluation, NEHRP site classification, site response analyses and ground motion amplification, liquefaction and response of earth structures.

0101	Mohamed Aggour	Seats (Total: 25)
	Th 5:00pm - 7:30pm	EGR 1102

ENCE799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Majors only. Other majors require permission of department.

Contact department for information to register for this course.

ENCE898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

ENCE899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Majors only. Other majors require permission of department.

Contact department for information to register for this course.

ENCH Engineering, Chemical Spring 2022

ENCH608 **Research in Chemical Engineering**

Credits: 1 Grading Method: Regular, Audit

Students gain experience in research through lab rotations and experience presenting their findings.

Contact department for information to register for this course.

ENCH609 **Graduate Seminar**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

Seminar in Chemical and Biomolecular Engineering

Advanced special students require department permission.

0101	Chen Zhang	Seats (Total: 30)
	M 10:00am - 11:00am	CHE 2110

ENCH630 **Transport Phenomena**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: CHBE422; and ENCH424. Or students who have taken courses with comparable content may contact the department. Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: ENCH630 or CHBE630. Formerly: ENCH630.

Heat, mass and momentum transfer theory from the viewpoint of the basic transport equations. Steady and unsteady state; laminar and turbulent flow; boundary layer theory, mechanics of turbulent transport; with specific application to complex chemical engineering situations.

0101	Panagiotis Dimitrakopoulos	Seats (Total: 30)
	MW 3:30pm - 4:45pm	CHE 2136

ENCH640 **Advanced Chemical Reaction Kinetics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: CHBE440; or students who have taken courses with comparable content may contact the department. Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: ENCH640 or CHBE640. Formerly: ENCH640.

The theory and application of chemical reaction kinetics to reactor design. Reaction rate theory; homogeneous batch and flow reactors; fundamentals of catalysis; design of heterogeneous flow reactors.

0101	Dongxia Liu MW 2:00pm - 3:15pm	Seats (Total: 30) EGR 2116

ENCH648 **Special Problems in Chemical Engineering**

(Perm req)

Credits: 1-16 Grading Method: Regular, Audit

Research project under the direction of a faculty member.

Contact department for information to register for this course.

ENCH648D **Special Problems in Chemical Engineering; Biopharmaceutical Process Development and Manufacturing**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Research project under the direction of a faculty member.

0101	Deborah Goldberg MW 12:30pm - 1:45pm	Seats (Total: 5) AJC 2119

ENCH648K **Special Problems in Chemical Engineering; Advanced Fuel Cells and Batteries**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Research project under the direction of a faculty member.

0101	Chunsheng Wang MW 11:00am - 12:15pm	Seats (Total: 25) JMP 2121
ME01	Chunsheng Wang MW 11:00am - 12:15pm	Seats (Total: 10) Location: TBA

ENCH648N **Special Problems in Chemical Engineering; Bionanotechnology**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Research project under the direction of a faculty member.

Cross-listed with BIOE689N. Credit granted for ENCH648N or BIOE689N.

0101	Srinivasa Raghavan	Seats (Total: 33)
	TuTh 2:00pm - 3:15pm	CHE 2110

ENCH648P **Special Problems in Chemical Engineering; Protein Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Research project under the direction of a faculty member.

0101	Amy Karlsson	Seats (Total: 5)
	TuTh 5:00pm - 6:15pm	CHM 1224

ENCH648Q **Special Problems in Chemical Engineering; Mesoscopic and Nanoscale Thermodynamics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Research project under the direction of a faculty member.

0101	Mikhail Anisimov	Seats (Total: 5)
	TuTh 12:30pm - 1:45pm	Location: TBA

ENCH781 **Polymer Reaction Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENCH640; or permission of instructor. Credit only granted for: ENCH781 or CHBE690. Formerly: ENCH781.

Advanced topics in polymerization kinetics, reactor design and analysis; addition and step-growth polymerization; homogeneous and heterogeneous polymerization; photopolymerization; reactor dynamics; optimal operation and control of industrial polymerization reactors.

0101	Kyu Yong Choi	Seats (Total: 10)
	MW 5:00pm - 6:15pm	CHE 2118

ENCH799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENCH898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

ENCH899 **Doctoral Dissertation Research; Chemical Engineering**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENCO Engineering, Cooperative Education Spring 2022

ENCO099 **Co-Op/Intern Work Experience**

(Perm req)

Credits: 0 Grading Method: Sat-Fail

Participation in a cooperative education (co-op) or internship program enables students to apply the theories that they have learned in their traditional classes with paid, supervised, career-related work experience that develops technical and professional work skills. Contact the Engineering Co-op & Career Services Office.

0101	Veronica Perrigan, Liza Lebrun, Heidi Sauber Contact instructor or department for details.	Seats (Total: 200)

ENEB Embedded Systems & Internet of Things Spring 2022

ENEB304 **Microelectronics and Sensors**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENEB302; and permission from the Embedded Systems & Internet of Things program required. Restriction: Must be in the Embedded Systems & Internet of Things program.

An overview of basic Internet of Things (IOT) architecture, core IOT hardware enablers, and IOT sensors and their implementation. This course covers commonly used analog amplifier designs and biasing, as well as characterization in the frequency and time domains. In addition, this course discusses the physical principles in RF communications as it relates to wireless personal and local networks (WPAN/WLAN) and short-range communication systems.

ESG1	Romel Gomez	Seats (Total: 10)	
	MW 1:00pm - 2:15pm	BLD4 3335	
	W 12:00pm - 12:50pm	BLD4 3335	Discussion
	Restricted to ESIOT students at Shady Grove.		

ENEB345 **Probability & Statistical Inference**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH141. Restriction: Must be in the Embedded Systems & Internet of Things program and must receive permission from the Embedded Systems & Internet of Things program.

This is a foundational course on probability and statistics for data science and connected embedded systems. This covers basic statistics and probability theory, including random variables, standard distributions, moments, law of large numbers and central limit theorem, sampling methods, estimation of parameters, testing of hypotheses. The course also includes the mathematical theory of randomness, and applications to big data analysis and analysis in the presence of uncertainty, and applications to machine learning algorithms.

ESG1	Yavuz Oruc	Seats (Total: 10)
	Tu 9:30am - 12:00pm	ONLINE
	Restricted to ESIOT students at Shady Grove.	

ENEB352 **Introduction to Networks and Protocols**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENEB341; and permission from the Embedded Systems & Internet of Things program. Restriction: Must be in the Embedded Systems & Internet of Things program.

An introduction to the principles of computer networking and covers the architecture and operation of the TCP/IP protocol stack. Topics will include fundamental networking concepts, the layers of the TCP/IP protocol stack, the packet structure and operation of each layer with detailed discussion on reliable data transfer, flow control, congestion control, routing algorithms, error detection, Local Area Networks (LANs), and multiple access protocols. The course will also cover wireless protocols relevant to Internet of Things (IoT) such as WLAN (IEEE 802.11), Zigbee (IEEE 802.15.4), and Bluetooth as well as some popular IoT application-layer and network-layer protocols including CoAP, AMQP, MQTT, XMPP and 6LoWPAN. As a part of the course work, the students will attend lab sessions where they will learn how to capture and analyze network traffic, how to configure networking functions on Linux systems, and how to operate and configure routers using Juniper Networks devices in a real-world lab environment.

ESG1	Zoltan Safar	Seats (Total: 10)	
	M 2:30pm - 5:00pm	BLD4 3210	
	M 9:30am - 12:00pm	BLD4 3210	Lab
	Restricted to ESIOT students at Shady Grove.		

ENEB353 **Computer Organization for Embedded Systems**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENEB344 and ENEB354; and permission from the Embedded Systems & Internet of Things program. Restriction: Must be in the Embedded Systems & Internet of Things program.

Overview of the basic principles of computer organization and design with emphasis on low resource microcontrollers common in IoT applications. The topics include assembly and machine instructions, data-path and controller design, pipelining and memory hierarchy.

ESG1	Manoj Franklin	Seats (Total: 10)	
	Tu 2:30pm - 5:00pm	BLD4 2324	
	W 10:00am - 10:50am	BLD4 2324	Discussion
	Restricted to ESIOT students at Shady Grove.		

ENEB355 **Algorithms in Python**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENEB340 and ENEB354; and permission from the Embedded Systems & Internet of Things program. Restriction: Must be in the Embedded Systems & Internet of Things program. Credit only granted for: ENEB355 or ENBC322.

A study of fundamental algorithmic problem-solving techniques in Python for today's large-scale computer systems as well as microcontrollers. Algorithms are instructions for solving problems and data structures are strategies for organizing information on computers. Efficient algorithms require appropriate data structures, and vice versa. Students will learn about the algorithms and data structures that form the building blocks of Python programming language. Student will also learn to analyze the cost of algorithms, according to how their running time or space requirements grows as data size grows.

ESG1	George Zaki	Seats (Total: 10)	
	Th 5:30pm - 8:00pm	BLD4 4321	
	W 2:30pm - 3:20pm	BLD4 3210	Discussion
	Restricted to ESIOT students at Shady Grove.		

ENEB408B **Capstone Design Lab; Capstone Design Lab II**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

This course is the first of a two-semester sequence of capstone design laboratory experiences required for Embedded Systems and Internet of Things students. Students will learn the principles of design, project planning, and project management. They will develop an ability to apply engineering solutions considering public health, safety, and welfare. Students will develop a consciousness of ethical and professional responsibilities and recognition of global, cultural, social, environmental, and economic factors in the design process. Students will also develop an ability to communicate in written and oral forms and to function effectively on a team. Projects will involve hardware, including a combination of off-the-shelf and custom-made components supported by hardware descriptive language software. The projects meet specific design challenges with applications in industry, healthcare, transportation, environmental sensing, cyber-security, and machine learning.

ESG1	Jerry Wu	Seats (Total: 10)	
	M 3:45pm - 5:00pm	BLD4 1119	
	Th 1:00pm - 4:00pm	BLD4 5202	Lab
	Restricted to ESIOT students at Shady Grove.		

ENEB443 **Hardware/Software Security for Embedded Systems**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission from the Embedded Systems & Internet of Things program; and minimum grade of C- in ENEB454. Restriction: Must be in the Embedded Systems & Internet of Things program.

This course will provide an in-depth understanding of systems level software and hardware in designing industry-standard secured embedded systems. It aims to provide a comprehensive systems view of security, including hardware, platform software such as operating systems and integrated development environments, software development process, data protection protocols, and some aspects of cryptography. To goal is to expose students on how to develop embedded software and properly utilize platform components to ensure the highest levels of security.

ESG1	George Zaki	Seats (Total: 10)	
	Tu 5:00pm - 7:30pm	BLD4 3202	
	Restricted to ESIOT students at Shady Grove.		

ENEB452 **Advanced Software for Connected Embedded Systems**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENEB454; and permission from the Embedded Systems & Internet of Things program. Restriction: Must be in the Embedded Systems & Internet of Things program; and senior standing.

Hardware and software foundations, evaluations and validation, application mapping, optimization and testing of cyber-physical systems, namely, embedded systems and communication technologies.

ESG1	Ashish Alexander	Seats (Total: 10)	
	M 9:00am - 11:30am W 10:00am - 12:00pm	ONLINE BLD4 3210	Lab
	Restricted to ESIOT students at Shady Grove.		

ENEB453 **Web-Based Application Development**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENEB340 and ENEB341. Restriction: Must be in the Embedded Systems & Internet of Things program; and permission of the Embedded Systems & Internet of Things program.

Introduction to cloud computing, computer programming in the context of developing full-featured dynamic websites. Uses a problem-solving approach to teach basics of program design and implementation using JavaScript; relates these skills to the creation of dynamic websites; then explores both the potential and limits of web-based information sources for use in research. This course provides a practical introduction to full-stack web development using PHP and JavaScript. The course will start with HTML/CSS/JavaScript to cover the client-side of applications. Then, it will move on to the server-side with PHP and integrating with a MySQL database to create a complete web application.

ESG1	Michael Connelly	Seats (Total: 10)	
	Th 4:30pm - 7:30pm	BLD4 2335	
	Restricted to ESIOT students at Shady Grove.		

ENEB455 **Advanced FPGA System Design using Verilog for Embedded Systems**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENEB344 and ENEB340; and permission from the Embedded Systems & Internet of Things program. Restriction: Must be in the Embedded Systems & Internet of Things program.

A project-oriented course on digital system design using Verilog hardware description language (HDL) in an industry-standard design environment appropriate for embedded systems. Students will implement real-world designs in field programmable gate arrays (FPGAs) as well as test and optimize the FPGA. Students will also work in teams on multiple, medium-scale digital system design projects and make oral presentations and written reports.

ESG1	Jerry Wu M 1:00pm - 3:30pm W 1:00pm - 3:00pm *Restricted to ESIOT students at Shady Grove.*	Seats (Total: 10) BLD4 1119 BLD4 2322	 Lab

ENEE Electrical & Computer Engineering Spring 2022

ENEE101 **Introduction to Electrical & Computer Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Corequisite: MATH140. And corequisite: ENEE140 or CMSC131; or a score of 5 on the A Java AP exam; or a score of 4 or 5 on the AB Java AP exam; or satisfactory performance on the department's placement exam. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer) ; and students cannot enroll in ENEE101 and ENES100 in the same semester.

An exploration of topics within Electrical & Computer Engineering (ECE). Students will be introduced to key elements of both the Electrical Engineering and Computer Engineering curriculum, including: circuits, computing systems and software, communications and controls, electrodynamics and waves, microelectronics, signal processing, and power systems.

0101	Romel Gomez F 12:00pm - 12:50pm MW 4:00pm - 5:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0102	Romel Gomez F 12:00pm - 12:50pm MW 10:00am - 11:50am	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0103	Romel Gomez F 12:00pm - 12:50pm MW 12:00pm - 1:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0104	Romel Gomez F 12:00pm - 12:50pm MW 2:00pm - 3:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0107	Romel Gomez F 12:00pm - 12:50pm TuTh 10:00am - 11:50am	Seats (Total: 12) EGR 1202 AVW 1344	 Lab

0108	Romel Gomez F 12:00pm - 12:50pm TuTh 12:00pm - 1:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0109	Romel Gomez F 12:00pm - 12:50pm TuTh 2:00pm - 3:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0110	Romel Gomez F 12:00pm - 12:50pm TuTh 4:00pm - 5:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab

ENEE140 **Introduction to Programming Concepts for Engineers**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in Engineering: Electrical program; or must be in Engineering: Materials Science program.

Introduction to the programming environment: editing, compiling, UNIX, data types and variable scope; program selection, formatted/unformatted input/output, repetition, functions, arrays and strings.

0101	Wesley Lawson Tu 11:00am - 12:15pm WF 9:00am - 9:50am	Seats (Total: 13) EGR 1108 AVW 1454	 Discussion
0104	Wesley Lawson Tu 11:00am - 12:15pm WF 1:00pm - 1:50pm	Seats (Total: 13) EGR 1108 AVW 1454	 Discussion

ENEE150 **Intermediate Programming Concepts for Engineers**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of ENGR-Electrical & Computer Engineering department. And ENEE140 or CMSC131; or score of 5 on the A Java AP exam; or score of 4 or 5 on the AB Java AP exam; or satisfactory performance on the department's placement exam. Corequisite: MATH140. Restriction: Must be in Engineering: Electrical program. Credit only granted for: ENEE114 or ENEE150. Formerly: ENEE114.

Advanced programming concepts: coding conventions and style; pointers; dynamic memory allocation and data structures; linked lists; graphs; abstract data types; object-oriented design. There will be team-based software projects and group presentations.

0101	Donald Yeung MW 11:00am - 12:15pm Th 9:00am - 9:50am	Seats (Total: 12) EGR 0135 AVW 1454	Discussion
0102	Donald Yeung MW 11:00am - 12:15pm Th 10:00am - 10:50am	Seats (Total: 12) EGR 0135 AVW 1454	Discussion
0103	Donald Yeung MW 11:00am - 12:15pm Th 11:00am - 11:50am	Seats (Total: 12) EGR 0135 AVW 1454	Discussion
0201	Gang Qu TuTh 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 12) EGR 0135 AVW 1442	Discussion
0203	Gang Qu TuTh 11:00am - 12:15pm F 2:00pm - 2:50pm	Seats (Total: 12) EGR 0135 AVW 1442	Discussion

ENEE200 **Technology and Consequences: Engineering, Ethics, and Humanity**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: IE | General Education: DSHU, SCIS

What makes a technology socially responsible? At UMD, the Fearless Ideas campaign asks us to aim our enthusiasm for technology at big real problems. At the same time, we are coming to appreciate the increasingly complex nature of technological systems as they become integrated into all forms of infrastructure, we realize they may be unpredictable, interdependent on social and biological systems, and have unintended consequences. In this midst of this complexity, people make decisions with far reaching impacts. How then do we follow our passion for technology and innovation but also stay skeptical in a way that allows us to consider the potential and shortcomings of technology? Designed for both engineering and non-engineering students wishing to explore and assess the impact of engineering technology on society and the role of society in generating that technology.

Electrical Engineering (09090) and Computer Engineering(09991) majors have priority. Non-majors should choose the holdfile option. Department will release available seats to students in the holdfile after the last day of Early Registration for freshmen.

0101	Nicole Mogul TuTh 2:00pm - 3:15pm F 9:00am - 10:15am	Seats (Total: 16) ESJ 2208 PLS 1158	Discussion

0102	Nicole Mogul TuTh 2:00pm - 3:15pm F 10:00am - 11:15am	Seats (Total: 16) ESJ 2208 PLS 1111	Discussion
0103	Nicole Mogul TuTh 2:00pm - 3:15pm F 10:00am - 11:15am	Seats (Total: 16) ESJ 2208 HBK 0109	Discussion
0104	Nicole Mogul TuTh 2:00pm - 3:15pm F 12:00pm - 1:15pm	Seats (Total: 16) ESJ 2208 EGR 3106	Discussion
0105	Nicole Mogul TuTh 2:00pm - 3:15pm F 2:00pm - 3:15pm	Seats (Total: 16) ESJ 2208 PLS 1172	Discussion
0106	Nicole Mogul TuTh 2:00pm - 3:15pm F 11:00am - 12:15pm	Seats (Total: 16) ESJ 2208 PLS 1164	Discussion
0107	Nicole Mogul TuTh 2:00pm - 3:15pm F 12:00pm - 1:15pm	Seats (Total: 16) ESJ 2208 PLS 1168	Discussion
0201	Timothy Reedy TuTh 9:30am - 10:45am F 9:00am - 10:15am	Seats (Total: 15) PLS 1140 EGR 3114	Discussion
0202	Timothy Reedy TuTh 9:30am - 10:45am F 10:00am - 11:15am	Seats (Total: 15) PLS 1140 ATL 2352	Discussion
0203	Timothy Reedy TuTh 9:30am - 10:45am F 10:00am - 11:15am	Seats (Total: 15) PLS 1140 AJC 2134	Discussion
0204	Timothy Reedy TuTh 9:30am - 10:45am F 12:00pm - 1:15pm	Seats (Total: 15) PLS 1140 EGR 3111	Discussion

0205	Timothy Reedy TuTh 9:30am - 10:45am F 2:00pm - 3:15pm	Seats (Total: 15) PLS 1140 ATL 1106	 Discussion

ENEE205 **Electric Circuits**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in PHYS260; and minimum grade of C- in PHYS261; and permission of ENGR-Electrical & Computer Engineering department. Corequisite: MATH246. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical). Credit only granted for: ENEE204 or ENEE205. Formerly: ENEE204.

Design, analysis, simulation, construction and evaluation of electric circuits. Terminal Relationships. Kirchoff's laws. DC and AC steady state analysis. Node and mesh methods. Thevenin and Norton equivalent circuits. Transient behavior of first- and second-order circuits. Frequency response and transfer functions. Ideal op-amp circuits. Diode and transistor circuits.

0101	Wesley Lawson MW 12:30pm - 1:45pm Tu 12:00pm - 1:50pm Tu 11:00am - 11:50am	Seats (Total: 13) KEB 1110 AVW 1356 AVW 1356	 Lab Discussion
0102	Wesley Lawson MW 12:30pm - 1:45pm Tu 3:00pm - 4:50pm Tu 2:00pm - 2:50pm	Seats (Total: 12) KEB 1110 AVW 1356 AVW 1356	 Lab Discussion
0103	Wesley Lawson MW 12:30pm - 1:45pm Th 12:00pm - 1:50pm Th 11:00am - 11:50am	Seats (Total: 12) KEB 1110 AVW 1356 AVW 1356	 Lab Discussion
0104	Wesley Lawson MW 12:30pm - 1:45pm Th 3:00pm - 4:50pm Th 2:00pm - 2:50pm	Seats (Total: 13) KEB 1110 AVW 1356 AVW 1356	 Lab Discussion
0105	Wesley Lawson MW 12:30pm - 1:45pm Tu 9:00am - 10:50am Tu 8:00am - 8:50am	Seats (Total: 13) KEB 1110 AVW 1356 AVW 1356	 Lab Discussion

0201	Julius Goldhar	Seats (Total: 12)	
	TuTh 11:00am - 12:15pm	KEB 1110	
	M 12:00pm - 1:50pm	AVW 1356	Lab
	M 11:00am - 11:50am	AVW 1356	Discussion
0202	Julius Goldhar	Seats (Total: 12)	
	TuTh 11:00am - 12:15pm	KEB 1110	
	M 3:00pm - 4:50pm	AVW 1356	Lab
	M 2:00pm - 2:50pm	AVW 1356	Discussion
0203	Julius Goldhar	Seats (Total: 12)	
	TuTh 11:00am - 12:15pm	KEB 1110	
	W 3:00pm - 4:50pm	AVW 1356	Lab
	W 2:00pm - 2:50pm	AVW 1356	Discussion
0204	Julius Goldhar	Seats (Total: 12)	
	TuTh 11:00am - 12:15pm	KEB 1110	
	F 12:00pm - 1:50pm	AVW 1356	Lab
	F 11:00am - 11:50am	AVW 1356	Discussion

ENEE222 **Elements of Discrete Signal Analysis**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in MATH141; and permission of ENGR-Electrical & Computer Engineering department. And minimum grade of C- in ENEE140; or minimum grade of C- in CMSC131. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer). Credit only granted for: ENEE222, ENEE241, or MATH242. Formerly: ENEE241.

Discrete-time and continuous-time signals, sampling. Linear transformers, orthogonal projections. Discrete Fourier Transform and its properties. Fourier Series. Introduction to discrete-time linear filters in both time and frequency domains.

0101	Gilmer Blankenship	Seats (Total: 20)	
	MW 2:00pm - 3:15pm	JMP 3201	
	Th 9:00am - 9:50am	EGR 0312	Lab
	Tu 9:00am - 9:50am	EGR 0312	Discussion
0102	Gilmer Blankenship	Seats (Total: 20)	
	MW 2:00pm - 3:15pm	JMP 3201	
	Th 10:00am - 10:50am	EGR 0312	Lab
	Tu 10:00am - 10:50am	EGR 0312	Discussion

0201	Adrianos Papamarcou	Seats (Total: 20)	
	TuTh 12:30pm - 1:45pm	KEB 1110	
	W 9:00am - 9:50am	KEB 2107	Lab
	F 9:00am - 9:50am	KEB 2107	Discussion
0202	Adrianos Papamarcou	Seats (Total: 20)	
	TuTh 12:30pm - 1:45pm	KEB 1110	
	W 10:00am - 10:50am	KEB 2107	Lab
	F 10:00am - 10:50am	KEB 2107	Discussion
0203	Adrianos Papamarcou	Seats (Total: 20)	
	TuTh 12:30pm - 1:45pm	KEB 1110	
	W 8:00am - 8:50am	KEB 2107	Lab
	F 8:00am - 8:50am	KEB 2107	Discussion

ENEE244 **Digital Logic Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Must have completed or be concurrently enrolled in CMSC132 or ENEE150; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Sophomore standing or higher; and must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

The design and analysis of combinational and synchronous sequential systems comprising digital logic gates and flip-flop memory devices; underlying tools such as switching and Boolean algebras and Karnaugh map simplification of gate networks; design and use of decoders, multiplexers, encoders, adders, registers, counters, sequence recognizers, programmable logic arrays (PLAs), read-only memories (ROMS, PROMS), and similar devices. Arbitrary radix conversion.

0101	Manoj Franklin	Seats (Total: 10)	
	MW 11:00am - 12:15pm	EGR 1108	
	F 9:00am - 9:50am	EGR 3111	Discussion
0102	Manoj Franklin	Seats (Total: 10)	
	MW 11:00am - 12:15pm	EGR 1108	
	F 10:00am - 10:50am	CHE 2140	Discussion
0103	Manoj Franklin	Seats (Total: 10)	
	MW 11:00am - 12:15pm	EGR 1108	
	F 11:00am - 11:50am	PLS 1168	Discussion

0201	Jerry Wu TuTh 3:30pm - 4:45pm M 9:00am - 9:50am	Seats (Total: 10) CSI 1121 PLS 1164	 Discussion
0202	Jerry Wu TuTh 3:30pm - 4:45pm M 10:00am - 10:50am	Seats (Total: 10) CSI 1121 PLS 1164	 Discussion
0203	Jerry Wu TuTh 3:30pm - 4:45pm M 11:00am - 11:50am	Seats (Total: 10) CSI 1121 PLS 1164	 Discussion

ENEE245 **Digital Circuits and Systems Laboratory**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE244. And minimum grade of C- in ENEE150; or minimum grade of C- in CMSC132. And permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer).

Introduction to basic measurement techniques and electrical laboratory equipment (power supplies, oscilloscopes, voltmeters, etc.). Design, construction, and characterization of digital circuits containing logic gates, sequential elements, oscillators, and digital integrated circuits. Introduction to digital design and simulation with the Verilog Hardware Description Language (HDL).

0101	Manoj Franklin W 10:00am - 10:50am Tu 8:00am - 10:50am	Seats (Total: 12) EGR 1202 AVW 1324	 Lab
0102	Manoj Franklin W 10:00am - 10:50am Tu 11:00am - 1:50pm	Seats (Total: 12) EGR 1202 AVW 1324	 Lab
0103	Manoj Franklin W 10:00am - 10:50am M 2:00pm - 4:50pm	Seats (Total: 12) EGR 1202 AVW 1324	 Lab
0104	Manoj Franklin W 10:00am - 10:50am W 11:00am - 1:50pm	Seats (Total: 12) EGR 1202 AVW 1324	 Lab

0105	Manoj Franklin W 10:00am - 10:50am Th 11:00am - 1:50pm	Seats (Total: 12) EGR 1202 AVW 1324	Lab
0106	Manoj Franklin W 10:00am - 10:50am M 8:00am - 10:50am	Seats (Total: 12) EGR 1202 AVW 1324	Lab
0107	Manoj Franklin W 10:00am - 10:50am W 2:00pm - 4:50pm	Seats (Total: 12) EGR 1202 AVW 1324	Lab
0108	Manoj Franklin W 10:00am - 10:50am Tu 2:00pm - 4:50pm	Seats (Total: 12) EGR 1202 AVW 1324	Lab
0109	Manoj Franklin W 10:00am - 10:50am Th 8:00am - 10:50am	Seats (Total: 12) EGR 1202 AVW 1324	Lab
0110	Manoj Franklin W 10:00am - 10:50am Th 2:00pm - 4:50pm	Seats (Total: 12) EGR 1202 AVW 1324	Lab

Students must complete all 200-level ENEE courses (or be currently registered in them) before permission will be granted to register for 300- or 400-level ENEE courses.

ENEE303 **Analog and Digital Electronics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE205; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer).

Conceptual operation of transistors and diodes. Large and small signal operation of BJTs and MOSFETs. Basic transistor configurations. Logic circuits and semiconductor memory. Multi-transistor circuits including differential amplifiers and current mirrors. Frequency response.

0101	Sahil Shah MW 9:30am - 10:45am F 9:00am - 9:50am	Seats (Total: 25) CHE 2108 PHY 1402	Discussion

0201	Timothy Horiuchi TuTh 11:00am - 12:15pm M 9:00am - 9:50am	Seats (Total: 25) CHE 2108 EGR 0135	Discussion
0202	Timothy Horiuchi TuTh 11:00am - 12:15pm M 10:00am - 10:50am	Seats (Total: 25) CHE 2108 EGR 1102	Discussion

ENEE307 **Electronic Circuits Design Laboratory**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE303; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

Students will design and test analog and digital circuits at the transistor level. FETs and BJTs will be covered. The laboratory experiments will be tightly coordinated with ENEE303 materials.

0101	Timothy Horiuchi M 10:00am - 10:50am M 2:00pm - 4:50pm	Seats (Total: 12) EGR 1202 AVW 1330	Lab
0103	Timothy Horiuchi M 10:00am - 10:50am Tu 2:00pm - 4:50pm	Seats (Total: 12) EGR 1202 AVW 1330	Lab
0104	Timothy Horiuchi M 10:00am - 10:50am Tu 11:00am - 1:50pm	Seats (Total: 12) EGR 1202 AVW 1330	Lab
0105	Timothy Horiuchi M 10:00am - 10:50am W 2:00pm - 4:50pm	Seats (Total: 12) EGR 1202 AVW 1330	Lab
0106	Timothy Horiuchi M 10:00am - 10:50am W 8:00am - 10:50am	Seats (Total: 12) EGR 1202 AVW 1330	Lab
0107	Timothy Horiuchi M 10:00am - 10:50am M 11:00am - 1:50pm	Seats (Total: 12) EGR 1202 AVW 1330	Lab

0109	Timothy Horiuchi M 10:00am - 10:50am F 8:00am - 10:50am	Seats (Total: 12) EGR 1202 AVW 1330	 Lab

ENEE313 **Introduction to Device Physics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE205; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer). Credit only granted for: ENEE312 or ENEE313.

Basic physics of devices including fields in solids, crystal structure, properties of electrons and holes. Current flow in Si using drift-diffusion model. Properties of the pn junction. Properties of devices including BJTs, FETs and their physical characteristics.

0101	Agisilaos Iliadis MW 2:00pm - 3:15pm F 9:00am - 9:50am	Seats (Total: 20) KEB 1200 EGR 1102	 Discussion
0102	Agisilaos Iliadis MW 2:00pm - 3:15pm F 10:00am - 10:50am	Seats (Total: 20) KEB 1200 EGR 1110	 Discussion
0201	Danilo Romero TuTh 12:30pm - 1:45pm W 11:00am - 11:50am	Seats (Total: 20) JMP 2116 JMP 2216	 Discussion
0202	Danilo Romero TuTh 12:30pm - 1:45pm W 12:00pm - 12:50pm	Seats (Total: 20) JMP 2116 EGR 1102	 Discussion

ENEE313H **Introduction to Device Physics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE205; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer). Credit only granted for: ENEE312 or ENEE313.

Basic physics of devices including fields in solids, crystal structure, properties of electrons and holes. Current flow in Si using drift-diffusion model. Properties of the pn junction. Properties of devices including BJTs, FETs and their physical characteristics.

0101	Agisilaos Iliadis MW 2:00pm - 3:15pm F 11:00am - 11:50am	Seats (Total: 15) KEB 1200 EGR 1110	Discussion

ENEE322 **Signal and System Theory**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in MATH246; and minimum grade of C- in ENEE222; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

Concept of linear systems, state space equations for continuous systems, time and frequency domain analysis of signals and linear systems. Fourier, Laplace and Z transforms. Application of theory to problems in electrical engineering.

0101	Alejandra Mercado MW 12:30pm - 1:45pm Tu 10:00am - 10:50am	Seats (Total: 20) JMP 2116 JMP 2217	Discussion
0102	Alejandra Mercado MW 12:30pm - 1:45pm Tu 11:00am - 11:50am	Seats (Total: 20) JMP 2116 PHY 4222	Discussion
0201	Andre Tits TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 20) EGR 1102 CHE 2140	Discussion

ENEE324 **Engineering Probability**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in MATH246 and ENEE222; and permission of ENGR-Electrical & Computer Engineering department. Credit only granted for: DATA400, STAT400 or ENEE324.

Axioms of probability; conditional probability and Bayes' rules; random variables, probability distribution and densities: functions of random variables: weak law of large numbers and central limit theorem. Introduction to random processes; correlation functions, spectral densities, and linear systems. Applications to noise in electrical systems, filtering of signals from noise, estimation, and digital communications.

ENEE majors (09090) only.

0101	Thomas Murphy MW 11:00am - 12:15pm F 12:00pm - 12:50pm	Seats (Total: 20) AJC 2132 AJC 2132	Discussion
0201	Adrianos Papamarcou TuTh 9:30am - 10:45am W 12:00pm - 12:50pm	Seats (Total: 18) EGR 0108 CHE 2140	Discussion
0202	Adrianos Papamarcou TuTh 9:30am - 10:45am W 1:00pm - 1:50pm	Seats (Total: 22) EGR 0108 CHE 2140	Discussion
0301	Jonathan Simon TuTh 11:00am - 12:15pm M 2:00pm - 2:50pm	Seats (Total: 20) JMP 2121 JMP 2222	Discussion

ENEE324H **Engineering Probability**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in MATH246 and ENEE222; and permission of ENGR-Electrical & Computer Engineering department. Credit only granted for: DATA400, STAT400 or ENEE324.

Axioms of probability; conditional probability and Bayes' rules; random variables, probability distribution and densities: functions of random variables: weak law of large numbers and central limit theorem. Introduction to random processes; correlation functions, spectral densities, and linear systems. Applications to noise in electrical systems, filtering of signals from noise, estimation, and digital communications.

0101	Adrianos Papamarcou TuTh 9:30am - 10:45am W 2:00pm - 2:50pm	Seats (Total: 15) EGR 0108 PLS 1162	Discussion

ENEE350 **Computer Organization**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE244; and 1 course with a minimum grade of C- from (ENEE150, CMSC132); and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical). Formerly: ENEE250.

Structure and organization of digital computers. Registers, memory, control and I/O. Data and instruction formats, addressing modes, assembly language programming. Elements of system software, subroutines and their linkages.

0101	Rajeev Barua MW 3:30pm - 4:45pm F 1:00pm - 1:50pm	Seats (Total: 25) KEB 1110 EGR 3114	 Discussion
0102	Rajeev Barua MW 3:30pm - 4:45pm F 2:00pm - 2:50pm	Seats (Total: 25) KEB 1110 EGR 3114	 Discussion
0201	Yavuz Oruc TuTh 12:30pm - 1:45pm F 2:00pm - 2:50pm	Seats (Total: 25) EGR 0108 AJC 2121	 Discussion
0202	Yavuz Oruc TuTh 12:30pm - 1:45pm F 3:00pm - 3:50pm	Seats (Total: 25) EGR 0108 AJC 2121	 Discussion

ENEE351 **Algorithms and Data Structures**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE150 and ENEE244. Restriction: Permission of ENGR-Electrical & Computer Engineering department; and must be in the Computer Engineering Minor or the Academy of Machine Learning. Credit only granted for: ENEE351 or CMSC351.

Introduction to fundamental concepts in computer engineering, including topics in discrete math, data structures and algorithms. The course will also include a hands-on programming component. This course will provide students with the tools to design modular, time and space-efficient algorithms for real-world problems.

0101	Dinesh Manocha MW 12:30pm - 1:45pm Th 1:00pm - 1:50pm Tu 1:00pm - 1:50pm	Seats (Total: 20) EGR 2116 AVW 1442 AVW 1442	 Lab Discussion

ENEE380 **Electromagnetic Theory**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE205; and minimum grade of C- in MATH241, PHYS270, and PHYS271; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in Engineering: Electrical program.

Introduction to electromagnetic fields. Coulomb's law, Gauss's law, electrical potential, dielectric materials capacitance, boundary value problems, Biot-Savart law, Ampere's law, Lorentz force equation, magnetic materials, magnetic circuits, inductance, time varying fields and Maxwell's equations.

ENEE majors (09090) only. Department Permission Required.

0101	Cheng Gong TuTh 2:00pm - 3:15pm M 3:00pm - 3:50pm	Seats (Total: 25) EGR 1108 EGR 1102	 Discussion
0102	Cheng Gong TuTh 2:00pm - 3:15pm M 4:00pm - 4:50pm	Seats (Total: 25) EGR 1108 EGR 1102	 Discussion

ENEE381 **Electromagnetic Wave Propagation**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE380; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in Engineering: Electrical program.

The electromagnetic spectrum: Review of Maxwell's equations; the wave equation potentials, Poynting's theorem, relationship between circuit theory and fields; propagation of electromagnetic waves in homogeneous media and at interfaces; transmission line theory, waveguides, radiation and antennas.

Permission Required. Prerequisite: ENEE 381. The goals of this course are to survey the field of microwave engineering, investigate the current applications of microwave systems, and understand the basic operating principles of the most common sources and components. This is an updated version of an earlier course on the same subject (ENEE482, last offered in Spring 2008).

0101	Edward Ott MW 3:30pm - 4:45pm Th 2:00pm - 2:50pm	Seats (Total: 20) EGR 1104 PLS 1111	 Discussion
0201	Patrick O'Shea TuTh 2:00pm - 3:15pm M 12:00pm - 12:50pm	Seats (Total: 20) EGR 0108 ITV 1100	 Discussion

0202	Patrick O'Shea	Seats (Total: 25)	
	TuTh 2:00pm - 3:15pm M 1:00pm - 1:50pm	EGR 0108 ITV 1100	Discussion

ENEE381H **Electromagnetic Wave Propagation**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE380; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in Engineering: Electrical program.

The electromagnetic spectrum: Review of Maxwell's equations; the wave equation potentials, Poynting's theorem, relationship between circuit theory and fields; propagation of electromagnetic waves in homogeneous media and at interfaces; transmission line theory, waveguides, radiation and antennas.

0101	Edward Ott	Seats (Total: 15)	
	MW 3:30pm - 4:45pm M 2:00pm - 2:50pm	EGR 1104 CHE 2116	Discussion

ENEE408A **Capstone Design Project:Microprocessor-Based Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail CORE: CS

Prerequisite: ENEE440. This course provides a team-based experience in the design and implementation of a microprocessor-based system to solve a real-world problem. A product specification or client requirement forms the basis for the student teams development of an initial technical design specification. The team then divides into smaller groups for the parallel development of hardware and software subsystems of the product device. Upon completion and test of the various subsystems, software and hardware components are integrated into the system prototype and the system is tested and documented.

0101	William Hawkins	Seats (Total: 18)	
	Th 9:30am - 10:45am Contact instructor or department for details.	EGR 3114	

ENEE408D **Capstone Design Project: Mixed Signal VLSI Design**

(Perm req)

Credits: 3 Grading Method: Regular CORE: CS

Prerequisite: ENEE303, ENEE307, and ENEE313. This course covers the design of very large scale integrated (VLSI) circuits including analysis and simulation of digital and analog circuits, layout, and component selection. The material involves extensive use of Computer-Aided Design (CAD) tools for circuit simulation and layout and draws upon knowledge from 300-level EE courses Following current industry paradigms, students work in teams to design, thoroughly simulate, and specify physical layout of mixed signal VLSI circuits prior to their fabrication in a foundry.

Click here for more course information.

0101	Pamela Abshire TuTh 9:30am - 10:20am F 11:00am - 1:50pm	Seats (Total: 30) KEB 2107 KEB 2107	 Discussion
0102	Pamela Abshire TuTh 9:30am - 10:20am F 11:00am - 1:50pm	Seats (Total: 8) ONLINE ONLINE	 Discussion

ENEE408G **Capstone Design Project: Multimedia Signal Processing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail CORE: CS

Prerequisites: ENEE420 or 425. An introductory course on multimedia signal processing bringing real-world design experience to students using state-of-the-art multimedia software and hardware. Lectures will provide basic theories and principles on multimedia compression, processing, communications, security, and recognition.

Click here for more course information.

0101	Shihab Shamma M 12:30pm - 1:45pm Tu 12:00pm - 2:50pm	Seats (Total: 12) EGR 2154 KEB 2107	 Lab

ENEE408I **Capstone Design Project: Autonomous Control of Interacting Robots**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail CORE: CS

Prerequisite: ENEE322; Electrical or Computer Engineering seniors. Co-requisite: ENEE460 or ENEE463. The course involves students in the design,development, and application of autonomous robotic systems. The robots are 4 wheeled vehicles with on-board sensors (cameras, acoustic sensors),computers and wireless communications capabilities. The students work in teams to program the robots to accomplish a task individually and in teams of 2 or more more robots. Applications vary from semester to semester, including racing with passing, soccer, search and identify.

0101	Gilmer Blankenship	Seats (Total: 18)	
	M 10:00am - 10:50am Tu 11:00am - 1:50pm	EGR 3102 KEB 3209	Lab

ENEE408M **Capstone Design Project; Embedded Software Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Culmination of prior course work in electrical and computer engineering. Utilization of modern design tools and methodologies for the design of components or systems under realistic constraints, with particular emphasis on teamwork and oral/written communication. Areas in which projects are currently offered include: microprocessor-based systems, digital systems, VLSI design (both digital and mixed-signal), and optical systems.

Prerequisite: ENEE350. Restriction: permission of department. Students will gain experience in embedded software system design with an emphasis on handling important characteristics that are common in embedded applications -- resource constraints (limited resources for processing and limited memory), and real-time interfacing to the physical world. Topics that will be covered and integrated into the students design experience include embedded processor architectures, object-oriented design, model-based design, software testing, version control, real-time processing, embedded signal processing, and concurrent programming

0101	Shuvra Bhattacharyya	Seats (Total: 22)	
	Tu 3:30pm - 4:45pm Th 10:00am - 12:50pm	KEB 2111 KEB 2111	Lab

ENEE408T **Capstone Design Project; Accelerator Physics - Building the Maryland 5 MeV Cyclotron**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Culmination of prior course work in electrical and computer engineering. Utilization of modern design tools and methodologies for the design of components or systems under realistic constraints, with particular emphasis on teamwork and oral/written communication. Areas in which projects are currently offered include: microprocessor-based systems, digital systems, VLSI design (both digital and mixed-signal), and optical systems.

Prerequisite: ENEE380. Corequisite: ENEE381 or PHYS411; or permission of instructor. Restriction: Permission of ECE department. Cyclotrons are versatile accelerators whose use, because of an unsurpassed economic footprint, continues to expand in basic research, industry, medicine, and education. They also capture most of fundamentalphysics and technology of the biggest particle accelerators, such as CERN's LHC. This course provides students with a hands-on introduction to fundamental beam physics as well as the technology of cyclotrons, their design, commissioning, and operation. Students of this course will be designing and building a cyclotron.

0101	Brian Beaudoin	Seats (Total: 14)	
	TuTh 9:30am - 10:45am	EGR 3106	
	F 9:00am - 12:00pm	EGR 0312	Lab

ENEE408U **Capstone Design Project; Unmanned Air Vehicle Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Culmination of prior course work in electrical and computer engineering. Utilization of modern design tools and methodologies for the design of components or systems under realistic constraints, with particular emphasis on teamwork and oral/written communication. Areas in which projects are currently offered include: microprocessor-based systems, digital systems, VLSI design (both digital and mixed-signal), and optical systems.

Prerequisites: Completion of ENEE303 and ENEE381 with "C-" or better; OR Permission of the ECE Department. This proposed course will provide a team-based experience in the design and implementation of an electronics-based system to solve an unmanned vehicle problem. The UASTS technical challenge is the basis for the team's development of an initial technical design specification. Groups within the team pursue the parallel development of hardware and software subsystems of the product or device. Upon completion and test of the various subsystems, software and hardware components are integrated into the system prototype and the system is tested and documented.

Contact department for information to register for this course.

ENEE413 **Advanced Electronic Devices**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE303. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical) ; and permission of ENGR-Electrical & Computer Engineering department. Credit only granted for: ENEE413 or ENEE480. Formerly: ENEE480.

Advanced devices and their physical operation, providing a thorough description of those parts not usually covered in introductory electronics courses. These include Schottky and tunnel junctions, negative resistance devices used in wireless communication, homo-structure compound semiconductor transistors, hetero-structure (quantum effect) transistors, non-volatile memory devices, photonic devices such as LEDs and solid-state lasers, solar cells, photo-detectors and camera imagers, as well as bio-related components. Special consideration will be given to achieve an understanding of noise processes that limit electronic device performance. In all cases, system-level applications will be illustrated.

0101	Kevin Daniels	Seats (Total: 40)	
	MW 11:00am - 12:15pm	EGR 3106	

ENEE425 **Digital Signal Processing**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: ENEE322; and completion of all lower-division technical courses in the EE curriculum.

Sampling as a modulation process; aliasing; the sampling theorem; the Z-transform and discrete-time system analysis; direct and computer-aided design of recursive and nonrecursive digital filters; the Discrete Fourier Transform (DFT) and Fast Fourier Transform (FFT); digital filtering using the FFT; analog-to-digital and digital-to analog conversion; effects of quantization and finite-word-length arithmetic.

ENEE majors (09090) only.

0101	Mark Shayman TuTh 12:30pm - 1:45pm	Seats (Total: 30) AJC 2121

ENEE426 **Communication Networks**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: ENEE324 or STAT400; and completion of all lower-division technical courses in the EE curriculum. Restriction: Must be in Engineering: Computer or Engineering: Electrical program. Credit only granted for: CMSC417 or ENEE426.

The main design issues associated with computer networks, satellite systems, radio nets, and general communication networks. Application of analytical tools of queuing theory to design problems in such networks. Review of proposed architectures and protocols.

0101	Mark Shayman TuTh 3:30pm - 4:45pm	Seats (Total: 30) EGR 1104

ENEE428 **Communications Design Laboratory**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail

EE capstone design course. Exploring the signal processing and communication systems theoretical concepts presented in ENEE 420 Communication Systems and ENEE 425 Digital Signal Processing by implementing them on actual DSP based hardware in real time.

Prerequisite: ENEE324; Corequisite: ENEE425 or ENEE420. This course explores the signal processing and communication system theoretical concepts presented in ENEE 322 Signals and Systems, ENEE 324 Engineering Probability, ENEE 420 Communication Systems, and ENEE 425 Digital Signal Processing by implementing them on actual hardware in real time. In the process, students gain experience using equipment commonly used in industry, such as, oscilloscopes, spectrum analyzers, error rate test sets, channel simulators, digital signal processors, analog-to-digital and digital-to-analog converters, and signal generators. The experiments are based on using a Texas Instruments TMS320C6713 DSP Starter Kit (DSK) stand-alone board that communicates with the PC through a USB port.

0101	Steven Tretter	Seats (Total: 8)	
	W 10:00am - 10:50am	AVW 1364	
	W 2:00pm - 5:00pm	AVW 1364	Lab

ENEE436 **Foundations of Machine Learning**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: 1 course with a minimum grade of C- from (ENEE324, STAT400); and 1 course with a minimum grade of C- from (ENEE150, CMSC216); and permission of ENGR-Electrical & Computer Engineering department. Restriction: Permission of ENGR-Electrical & Computer Engineering department. And must be in one of the following programs (Engineering: Electrical; Engineering: Computer) ; or must be in the ECE Department's Machine Learning notation program. Credit only granted for: ENEE436, ENEE439M, or CMSC422. Formerly: ENEE439M.

A broad introduction to the foundations of Machine Learning (ML), as well as hands-on experience in applying ML algorithms to real-world data sets. Topics include various techniques in supervised and unsupervised learning, as well as applications to computer vision, data mining, and speech recognition.

Priority will be given to students in the Academy of Machine Learning (AML) program. Students not in the AML program should contact their advisor for permission details.

0101	Behtash Babadi	Seats (Total: 45)
	MW 2:00pm - 3:15pm	AJC 2132

ENEE439D **Topics in Signal Processing; Design Experience in Machine Learning**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Selected topics of current importance in signal processing.

Prerequisite: Completion of the following courses with a"C-" or better: ENEE439M; ENEE324 or STAT400. Restriction: Permission of ECE Department required. A design course bringing real-world design experience to students in a team setting. It draws synergy between machine learning, data science, sensing and signal processing, and other engineering skills and knowledge.

0101	Min Wu	Seats (Total: 20)	
	Tu 2:00pm - 3:15pm	EGR 3102	
	F 10:00am - 12:30pm	AVW 2446	Lab

ENEE440 **Microprocessors**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ENEE350; and completion of all lower division technical courses in the EE curriculum. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

Microprocessor architectures, instruction sets, and applications. Bus structures, memory, I/O interfacing. Assembly language programming, LSI device configuration, and the embedding of microprocessors in systems.

0101	William Hawkins	Seats (Total: 30)	
	TuTh 12:30pm - 1:45pm	EGR 2154	

ENEE445 **Computer Laboratory**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE205; or minimum grade of C- in ENEE206; and minimum grade of C- in ENEE350; and must have earned a minimum grade of C- in all 200-level ENEE courses; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

This laboratory course focuses on the hardware/software interface in computer systems. Hands-on experiments are used to teach design, construction, analysis, and measurement of both hardware and software for embedded systems. Projects emphasize using microcontrollers for control, sensing, and communication through various I/O devices.

0101	William Hawkins	Seats (Total: 12)	
	Tu 9:30am - 10:45am	EGR 3114	
	Th 2:00pm - 5:00pm	AVW 1424	Lab

ENEE446 **Digital Computer Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ENEE350; and completion of all lower-division technical courses in the EE curriculum. Restriction: Permission of ENGR-Electrical & Computer Engineering department. Credit only granted for: ENEE446 or CMSC411.

Hardware design of digital computers. Arithmetic and logic units, adders, multipliers and dividers. Floating-point arithmetic units. Bus and register structures. Control units, both hardwired and microprogrammed. Index registers, stacks, and other addressing schemes. Interrupts, DMA and interfacing.

ENEE majors (09090) only.

0101	Uzi Vishkin MW 5:00pm - 6:15pm	Seats (Total: 50) CSI 2117	
0201	Yavuz Oruc TuTh 3:30pm - 4:45pm	Seats (Total: 50) EGR 1108	

ENEE447 **Operating Systems**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail

Prerequisite: 1 course with a minimum grade of C- from (CMSC414, CMSC417, CMSC420, CMSC430, CMSC433, CMSC435, ENEE440, ENEE457); and permission of ENGR-Electrical & Computer Engineering department; and (ENEE350, CMSC330, and CMSC351). Restriction: Must be in Engineering: Computer program; and permission of ENGR-Electrical & Computer Engineering department. Credit only granted for: ENEE447, CMSC412, or ENEE459S. Formerly: ENEE459S.

The course will present the theory, design, implementation and analysis of computer operating systems. Through classroom lectures, homework, and projects, students learn the fundamentals of concurrency, process management, interprocess communication and synchronization, job scheduling algorithms, memory management, input-output devices, file systems, and protection and security in operating systems. Optional topics may include communications protocols, computer security, and real-time operating systems. The lectures will be complemented with a significant level of programming, bringing up a simple operating system from scratch, concurrently as the topics are discussed in lecture. A weekly recitation section will provide TA support and an informal laboratory atmosphere. Each student will have their own board, so development will be done largely outside the classroom at each student's pace.

0101	Manoj Franklin MW 2:00pm - 3:15pm Tu 11:00am - 12:50pm	Seats (Total: 18) EGR 1108 AVW 1442	 Lab
0102	Manoj Franklin MW 2:00pm - 3:15pm Tu 2:00pm - 3:50pm	Seats (Total: 18) EGR 1108 AVW 1442	 Lab

0103	Manoj Franklin MW 2:00pm - 3:15pm Th 11:00am - 12:50pm	Seats (Total: 18) EGR 1108 AVW 1442	 Lab
0104	Manoj Franklin MW 2:00pm - 3:15pm Th 2:00pm - 3:50pm	Seats (Total: 18) EGR 1108 AVW 1442	 Lab

ENEE456 **Cryptography**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: (CMSC106, CMSC131, or ENEE150; or equivalent programming experience); and (2 courses from (CMSC330, CMSC351, ENEE324, or ENEE380); or any one of these courses and a 400-level MATH course, or two 400-level MATH courses); and Permission of CMNS-Mathematics department or permission of instructor . Cross-listed with: MATH456, CMSC456. Credit only granted for: MATH456, CMSC456 or ENEE456.

The theory, application, and implementation of mathematical techniques used to secure modern communications. Topics include symmetric and public-key encryption, message integrity, hash functions, block-cipher design and analysis, number theory, and digital signatures.

0101	Justin Wyss-Gallifent MWF 11:00am - 11:50am	Seats (Total: 64) CSI 3117	
0201	Jonathan Katz TuTh 9:30am - 10:45am	Seats (Total: 80) CSI 3117	
0301	Dana Dachman-Soled MW 2:00pm - 3:15pm	Seats (Total: 50) KEB 1110	

ENEE459C **Topics in Computer Engineering; Digital CMOS VLSI Design Methods**

Credits: 3 Grading Method: Regular, Pass-Fail

Selected topics of current importance in computer engineering.

Prerequisites: Completion of ENEE303 and ENEE350 with a C- or better, or students who have taken courses with comparable content may contact the department; or permission of instructor (in case some of these prerequisites are not met). Jointly offered with ENEE640. Credit only granted for ENEE640 or ENEE459C. This course is geared towards developing a unified understanding of three critical aspects of VLSI: technology, design and tools. Popular methods of fabricating VLSI chips will be investigated, along with typical design practices and design tools. Topics will include photo lithography, layouts, low power and high performance design methods, fabrication randomness, ASICs, FPGAs and popular design methodologies. New directions in the field, such as 3D ICs, flash memory technology, carbonnanotubes, fin-fets and advanced cooling techniques, will be considered.

0101	Ankur Srivastava	Seats (Total: 15)	
	MW 3:30pm - 4:45pm	EGR 1108	

ENEE459D **Topics in Computer Engineering; Advanced Laboratory of Digital Systems Using Systems Verilog**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Selected topics of current importance in computer engineering.

Prerequisite: Completion of ENEE245 and ENEE350 with a C- or better. This project-oriented course will cover the basics of verifying hardware description language (HDL) digital systems, from theory to industry practice, and the implementation by a FPGA board. Laboratory exercises will deal with applications of the concepts taught, and these will be based on verification tools currently used in industry and SystemVerilog, a hardware description and hardware verification language. The lectures will discuss the basics of verification, starting with combinational logic, and include function representations based on digital design diagrams, finite state machines, as well as processors.

0101	Jerry Wu	Seats (Total: 10)	
	Th 5:00pm - 6:15pm	AVW 1442	
	Th 11:00am - 1:50pm	AVW 2446	Lab

ENEE459V **Topics in Computer Engineering; Embedded Systems**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Selected topics of current importance in computer engineering.

Prereqs: ENEE350; ENEE244; ENEE150 or CMSC216. The first decade of the 21st century was marked by the emergence of smart devices that are used in everyday life. Smart phones, smart cars, smart TV,smart thermostats, smart vacuum cleaners, to name just a few. These developments are powered in large part by the embedded systems. This course will provide students with the essential knowledge base that will enable them to tackle complex problems encountered in embedded systems design. In addition to the overview of associated hardware components and software methodologies and tools used in the development of modern embedded systems, and theory behind them, the course will include a carefully selected collection of hands-on Lab exercises that wouldhelp students get a sense of how the presented theoretical concepts connect with the real-world embedded systems applications.

0101	William Hawkins TuTh 3:30pm - 4:45pm	Seats (Total: 30) CSI 2118	

ENEE461 **Control Systems Laboratory**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE205; and minimum grade of C- in ENEE322; and must have earned a minimum grade of regular (letter) C- in all required 200-level ENEE courses; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical). Credit only granted for: ENEE461, ENME461, or ENME489N.

Students will design, implement, and test controllers for a variety of systems. This will enhance their understanding of feedback control and familiarize them with the characteristics and limitations of real control devices. They will also complete a small project. This will entail writing a proposal, purchasing parts for their controller, building the system, testing it, and writing a final report describing what they have done.

Prerequisite: permission of department. Cross-listed with ENME461. Credit granted for ENME461 or ENEE461.

0101	William Levine MW 9:00am - 9:50am M 1:00pm - 3:50pm	Seats (Total: 14) KEB 1110 KEB 3209	 Lab
0102	William Levine MW 9:00am - 9:50am W 1:00pm - 3:50pm	Seats (Total: 14) KEB 1110 KEB 3209	 Lab
0103	William Levine MW 9:00am - 9:50am F 9:00am - 11:50am	Seats (Total: 14) KEB 1110 KEB 3209	 Lab

0104	William Levine	Seats (Total: 14)	
	MW 9:00am - 9:50am W 10:00am - 12:50pm	KEB 1110 KEB 3209	Lab

ENEE463 **Digital Control Systems**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ENEE322; and completion of lower-division technical courses in the EE curriculum. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer). Formerly: ENEE469E.

Introduction to techniques for the analysis and design of linear control systems and implementation of control systems using digital technology. Topics include linearization, solution of linear equations, z-transforms and Laplace transforms, design of linear controllers, optimal control, and digital implementation of control designs. Students will use MATLAB for the solution of problems and the design of control systems.

0101	Munther Hassouneh	Seats (Total: 35)
	MW 5:00pm - 6:15pm	CSI 3118

ENEE469O **Topics in Controls; Introduction to Optimization**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Selected topics of current importance in controls.

Prerequisite: ENEE324 or STAT400; MATH240 or MATH461. Cross-listed with ENTS669F. Credit only granted for ENEE469O or ENTS669F. Students will be introduced to linear, nonlinear, unconstrained, constrained optimization. Convex optimization will be high lighted. Applications will be considered, in particular in the area of machine learning. Some optimization algorithms may be discussed, time permitting.

0101	Richard La	Seats (Total: 30)
	MW 12:30pm - 1:45pm	EGR 1104

ENEE473 **Electrical Machines Laboratory**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE205; and must have earned a minimum grade of regular (letter) C- in all required 200-level ENEE courses; and permission of ENGR-Electrical & Computer Engineering department. Recommended: ENEE322. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer).

Experiments involving single and three phase transformers, induction machines, synchronous machines and D.C. machines.

0101	David Bowen F 1:00pm - 1:50pm F 2:00pm - 5:00pm	Seats (Total: 12) JMP 1109 AVW 1360	 Lab
0102	David Bowen F 1:00pm - 1:50pm F 9:00am - 12:00pm	Seats (Total: 12) JMP 1109 AVW 1360	 Lab

ENEE475 **Power Electronics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ENEE303; and must have earned a minimum grade of regular (letter) C- in all required 200-level ENEE courses; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer).

This course is suitable for undergraduate and graduate students who want to learn the basic principles of power electronics and its applications. Special emphasis is placed on the interdisciplinary nature of power electronics. Strong and intimate connections between power electronics and circuit theory, electronic circuits, semiconductor devices, electric power, magnetic, motor drives and control are stressed.

0101	Isaak Mayergoyz TuTh 2:00pm - 3:15pm	Seats (Total: 75) ONLINE

ENEE488 **Independent Study in Electrical and Computer Engineering**

(Perm req)

Credits: 1-3 Grading Method: Regular

The purpose is to provide students with an opportunity for independent study projects on advanced electrical and computer engineering topics. These projects typically involve academic investigations of technical themes that are not addressed in the established elective and special topics courses taught by the department on a regular basis. Study plans are tailored to students educational goals but are approved and supervised by faculty.

Prerequisite: permission of department.

Contact department for information to register for this course.

ENEE489E **Topics in Electrophysics; Wireless Energy Transfer: Principles, Technologies, and Applications**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Selected topics of current importance in electrophysics.

Prerequisites: Completion of ENEE303 and ENEE381 with "C-" or better; OR Permission of the ECE Department. This course will deal with the current state-of-the-art in wireless energy transfer technology. It will elucidate the electromagnetic principles in the design of the receiving antenna and will discuss the various schemes to achieve optimal coupling in the near- and far-field regimes. The basic principles of power and radio electronics applied to the design of power delivery circuits will also be covered in this course. The use of simulation software such as FEKO and SPICE for computational electromagnetics and electronic simulations, respectively, will be used in the design of wireless power delivery systems. Modern commercial applications of wireless energy transfer such as wireless charging of UAV drones will be discussed.

Contact department for information to register for this course.

ENEE489L **Topics in Electrophysics; Design of Active and Passive Microwave Devices**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Selected topics of current importance in electrophysics.

Prerequisite: ENEE381. The goals of this course are to survey the field of microwave engineering, investigate the current applications of microwave systems, and understand the basic operating principles of the most common sources and components.

0101	Wesley Lawson	Seats (Total: 25)
	MW 9:30am - 10:45am	EGR 2154

ENEE489Q **Topics in Electrophysics; Quantum Phenomena in Electrical Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Selected topics of current importance in electrophysics.

Prerequisites: ENEE 380 and completion of all lower-division technical courses in the EE curriculum. Co-requisites: ENEE313 and ENEE381.

0101	Julius Goldhar	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	AJC 2121

ENEE489Y **Topics in Electrophysics; Introduction to US Navy Mission Systems Testing**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Selected topics of current importance in electrophysics.

Prerequisites: Completion ENEE322, ENEE324, and ENEE381 with "C-" or better; OR Permission of the ECE Department. This course is a survey treatment of the engineering theory and operation of a variety of US Navy mission systems installed on US Navy aircraft. The systems covered will be a range of technical discipline areas including communications, navigation, electro-optical, radar, and electronic-warfare systems. The course will discuss fundamental engineering theory of system operations and will include topical coverage of electromagnetic principles, communication theory, data networks, navigation principles, and both electro-optical and radar physics. Additional system discussions will include Unmanned Aviation Systems and electronic-warfare systems.

Contact department for information to register for this course.

ENEE496 **Lasers and Electro-optic Devices**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: ENEE381; and completion of all lower-division technical courses in the EE curriculum. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

Modern physical optics: Gaussian beams, optical resonators, optical waveguides; theory of laser oscillation, rate equations; common laser systems. Selected modern optoelectronic devices like detectors and modulators. Role of lasers and optoelectronics in modern technology.

0101	Mario Dagenais	Seats (Total: 30)
	MW 3:30pm - 4:45pm	EGR 3106

ENEE498K **Topics in Electrical Engineering; Advanced Design Lab on Electric Cars**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Selected topics of current importance in electrical engineering.

Prerequisite: completion of ENEE303 with a minimum grade of a "C-" and senior standing in Electrical or Computer Engineering. Recommended prerequisites: ENEE476, ENEE475, ENEE408K, or ENME408. An advanced laboratory course, with the purpose of designing a formula type electrical car with the objective of participating in Formula SAE competition. This is a systems level laboratory course, which will eventually use a combination of off-the-shelf components. The major components inside the electric car include electric motor, power inverter, drive circuit, battery, battery management system, sensors and encoders and charger. The course will provide various hands-on experiences involving different experiments on motors, inverters, dc/dc converters, and their overall integration, verification and testing on the environment of a real car. Through this laboratory course, the students will be exposed to the iterative design process forrealizing better system performance.

0101	Rakesh Resalayyan	Seats (Total: 18)	
	M 11:00am - 11:50am	EGR 1110	
	MW 5:00pm - 6:15pm	AJC 2132	Lab

ENEE499 **Senior Projects in Electrical and Computer Engineering**

(Perm req)

Credits: 1-5 Grading Method: Regular

The purpose is to provide students with an opportunity to engage in independent research projects on advanced electrical and computer engineering topics. Projects are selected by students and supervised by faculty and other qualified mentors. While students may be required to acquire new skills or information in the course of completing a 499 project, the focus is to conduct an independent investigation of a technical theme by the student. The project may be used to satisfy the advanced lab requirement if it is approved as a primarily experimental research project. In that case, the student will enroll in ENEE499L.

ENEE majors (09090) only.

Contact department for information to register for this course.

ENEE499L **Senior Projects in Electrical and Computer Engineering**

(Perm req)

Credits: 1-3 Grading Method: Regular

The purpose is to provide students with an opportunity to engage in independent research projects on advanced electrical and computer engineering topics. Projects are selected by students and supervised by faculty and other qualified mentors. While students may be required to acquire new skills or information in the course of completing a 499 project, the focus is to conduct an independent investigation of a technical theme by the student. The project may be used to satisfy the advanced lab requirement if it is approved as a primarily experimental research project. In that case, the student will enroll in ENEE499L.

Contact department for information to register for this course.

ENEE499R **Senior Projects in Electrical and Computer Engineering**

(Perm req) Credits: 1-3 Grading Method: Regular

The purpose is to provide students with an opportunity to engage in independent research projects on advanced electrical and computer engineering topics. Projects are selected by students and supervised by faculty and other qualified mentors. While students may be required to acquire new skills or information in the course of completing a 499 project, the focus is to conduct an independent investigation of a technical theme by the student. The project may be used to satisfy the advanced lab requirement if it is approved as a primarily experimental research project. In that case, the student will enroll in ENEE499L.

Contact department for information to register for this course.

ENEE601 **Semiconductor Devices and Technology**

Credits: 3 Grading Method: Regular, Audit

Recommended: ENEE413 and ENEE600. Credit only granted for: ENEE601 or ENEE697. Formerly: ENEE697.

The principles, structures and characteristics of semiconductor devices. Technology and fabrication of semiconductor devices.

0101	Agisilaos Iliadis	Seats (Total: 30)
	MW 12:30pm - 1:45pm	JMP 1202

ENEE612 **Advanced Power Electronics**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENEE303, ENEE475, or ENEE476; or students who have taken courses with comparable content may contact the department. Credit only granted for: ENEE719B or ENEE612. Formerly: ENEE719B.

Advanced power electronic converters, techniques to model and control switching circuits, pulse width modulation, resonant switch converters, resonant DC-link converters, series and parallel loaded resonant (SLR, PLR) DC-DC converters, zero voltage switching clamped-voltage (ZVS-CV) converters, ZVS resonant-switch DC-DC converters are explained. In addition, this course deals with small-signal and large-signal modeling and control of switched mode power converters, sliding-mode operation, state space models, generalized state-space averaging, and feedback linearization techniques. Multiple-input converters and their operational principles are explained. Furthermore, practical design procedures for type II and type III compensators with voltage-mode error-amplifier for DC/DC converters are explained.

0101	Alireza Khaligh	Seats (Total: 30)
	MW 3:30pm - 4:45pm	AJC 2132

ENEE621 **Estimation and Detection Theory**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENEE620; or students who have taken courses with comparable content may contact the department.

Estimation of unknown parameters, Cramer-Rao lower bound; optimum (map) demodulation; filtering, amplitude and angle modulation, comparison with conventional systems; statistical decision theory Bayes, minimax, Neyman/Pearson, Criteria-68 simple and composite hypotheses; application to coherent and incoherent signal detection; M-ary hypotheses; application to uncoded and coded digital communication systems.

0101	Prakash Narayan	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	AJC 2132

ENEE627 **Information Theory**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENEE620. Credit only granted for: ENEE627 or ENEE721. Formerly: ENEE721.

Information measures and their properties; entropy, relative entropy and mutual information. Information source models. Lossless data compression: the Kraft inequality, Shannon-Fano and Huffman codes. Typical sequences, asymptotic equipartition property, lossy source coding. Discrete memoryless channels: capacity, channel coding theorem. The additive Gaussian channel. Source coding under a fidelity constraint: rate distortion function and rate distortion theorem.

0101	Sennur Ulukus	Seats (Total: 35)
	MW 2:00pm - 3:15pm	AJC 2121

ENEE631 **Digital Image and Video Processing**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENEE620 and ENEE630; or students who have taken courses with comparable content may contact the department.

Foundations of digital image and video processing. Topics covered: 2-D systems and transforms; image acquisition and perception; multi-dimensional sampling; quantization; linear and non-linear techniques for image enhancement and restoration; basics on image analysis; lossless and lossy image compression; motion estimation and compensation; still image and video coding standards; applications of image and video processing.

0101	Raghuveer Rao	Seats (Total: 30)
	MW 3:30pm - 4:45pm	EGR 0135

ENEE632 **Speech and Audio Processing**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENEE620 and ENEE630. Credit only granted for: ENEE739A or ENEE632. Formerly: ENEE739A.

The objective is to apply digital signal processing techniques to speech and music signals. Topics covered include acoustic theory of speech production leading to the source-filter model; acoustic and digital vocal-tract models of speech production; speech analysis-synthesis based on the short-time Fourier transform, linear prediction, and homomorphic representations; extensions to other multiresolution analysis; time-domain models for speech processing; auditory perception and speech perception; waveform and model-based speech coding using scalar and vector quantization; time-scale modification; pitch and formant estimation; application of techniques to music analysis-synthesis.

0101	Carol Espy-Wilson	Seats (Total: 30)
	MW 12:30pm - 1:45pm	CHE 2136

ENEE640 **Digital CMOS VLSI Design**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENEE303 and ENEE350; or students who have taken courses with comparable content may contact the department; or permission of instructor.

Review of MOS transistors: fabrication, layout, characterization; CMOS circuit and logic design: circuit and logic simulation, fully complementary CMOS logic, pseudo-nMOS logic, dynamic CMOS logic, pass-transistor logic, clocking strategies; sub system design: ALUs, multipliers, memories, PLAs; architecture design: datapath, floorplanning, iterative cellular arrays, systolic arrays; VLSI algorithms; chip design and test: full custom design of chips, possible chip fabrication by MOSIS and subsequent chip testing.

Jointly offered with ENEE459C. Credit only granted for ENEE640 or ENEE459C.

0101	Ankur Srivastava	Seats (Total: 40)
	MW 3:30pm - 4:45pm	EGR 1108

ENEE645 **Compilers and Optimization**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENEE350 or CMSC216; or students who have taken courses with comparable content may contact the department. Credit only granted for: ENPM808T, ENEE645, or ENPM617.

The compilation, linking and loading process. Using lexical analyzers and parsers. Intermediate forms. Global, stack and heap objects, and their addressing modes. Stack implementation. Control flow analysis and optimization. Dataflow analysis and optimization including Static, single assignment. Alias analysis.

0101	Rajeev Barua	Seats (Total: 45)
	MW 12:30pm - 1:45pm	AJC 2121

ENEE661 **Nonlinear Control Systems**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENEE660; and (MATH410 or MATH411; or students who have taken courses with comparable content may contact the department). Or permission of instructor.

State space methods of stability analysis including second order systems and the phase plane, linearization and stability in the small, stability in the large and Lyapunov's second method. Frequency domain methods including the describing function. Popov's method and functional analytic methods. Introduction to Volterra series representations of nonlinear systems. Applications to conrol system design.

0101	Nuno Martins	Seats (Total: 30)
	MW 3:30pm - 4:45pm	AJC 2121

ENEE664 **Optimal Control**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENEE660 and MATH410; or students who have taken courses with comparable content may contact the department; or permission of instructor. Corequisite: MATH411; or permission of instructor.

General optimization and control problems. Conditions of optimality for unconstrained and constrained optimization problems; sensitivity; duality. Introduction to linear and nonlinear programming methods. Dynamic optimization. Discrete time maximum principle and applications. Pontryagin maximum principle in continuous time. Dynamic programming. Feedback realization of optimal control.

0101	Perinkulam Krishnaprasad	Seats (Total: 30)
	TuTh 5:00pm - 6:15pm	ONLINE

ENEE681 **Electromagnetic Waves and Applications**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: ENEE381; or students who have taken courses with comparable content may contact the department.

Review of Maxwell's equations: potentials, EM energy and momentum, EM plane waves. Properties of waves: dispersion, group velocity, diffraction, the ray optic limit. Waves in media: left-handed media, anisotropic media, wave guides, fibers, cavities. Radiation: antennas, Cherenkov radiation, radiation by accelerated charges, scattering. Additional topics: Wave chaos, Special Relativity.

0101	Thomas Antonsen	Seats (Total: 30)
	TuTh 9:30am - 10:45am	AJC 2119

ENEE686 **Charged Particle Dynamics, Electron and Ion Beams**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

General principles of single-particle dynamics; mapping of the electric and magnetic fields; equation of motion and methods of solution; production and control of charge particle beams; electron optics; Liouville's theorem; space charge effects in high current beams; design principles of special electron and ion beam devices.

0101	Patrick O'Shea	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	EGR 3106

ENEE692 **Introduction to Photonics**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: ENEE380 and ENEE381; or students who have taken courses with comparable content may contact the department.

Introduction to photonic concepts and applications. In particular, high quality factor optical resonators, photonic crystals, microresonators, statistical and photon optics, spontaneous and stimulated emission, semiconductor lasers and detectors, modulators and optical switches are discussed. Finally, the concept of photons and the quantum states of light are presented.

0101	Mario Dagenais	Seats (Total: 20)
	MW 11:00am - 12:15pm	EGR 2154

ENEE698P **Graduate Seminar; First Year Research Seminar**

Credits: 1

Grading Method: Sat-Fail, Audit

Every semester regular seminars are held in electrical science and in the six areas of specialization offered by the electrical engineering department. They may be taken, by arrangement with the student's advisor, for repeated credit.

Alternating face-to-face/ online class meeting. Please see instructor for details.

0101	Sennur Ulukus	Seats (Total: 75)
	W 5:00pm - 6:15pm	CSI 3117

ENEE698Q **Graduate Seminar; Colloquium Series**

Credits: 1

Grading Method: Sat-Fail, Audit

Every semester regular seminars are held in electrical science and in the six areas of specialization offered by the electrical engineering department. They may be taken, by arrangement with the student's advisor, for repeated credit.

0101	Joseph JaJa	Seats (Total: 80)
	F 3:30pm - 4:30pm	KEB 1110

ENEE699 **Independent Studies in Electrical Engineering**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit

Supervised individual study or project, or supervised group study or project, at an advanced level, in electrical engineering.

Contact department for information to register for this course.

ENEE729C **Advanced Topics in Communication; Classical and Quantum Codes**

Credits: 3

Grading Method: Regular, Audit

Prerequisites: MATH405 or MATH461, and ENEE324; or students who have taken courses with comparable content may contact the department. Cross-listing with MATH729C and CMSC858Q and PHYS889C. Credit only granted for ENEE729C, CMSC858Q, MATH729C, or PHYS899C. The course will cover topics in classical and quantum coding theory from the unified perspective of protecting information in classical communication and supporting fault-tolerant computations in quantum computers. Topics in classical codes include: Reed-Solomon codes, codes on algebraic curves, Reed-Muller codes, polar codes, rank metric codes. Topics in quantum codes include: stabilizer codes, CSS codes, GKP codes, polynomial codes, toric code. See www.ece.umd.edu/~abarg/CQC for further details.

0101	Alexander Barg, Victor Albert	Seats (Total: 36)
	MW 11:00am - 12:15pm	PHY 2124

ENEE759N **Advanced Topics in Computer Engineering**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Topics, as announced every semester, from the field of computer engineering and its applications.

0101	Ming Lin	Seats (Total: 35)
	TuTh 3:30pm - 4:45pm	IRB 2207

ENEE789B **Advanced Topics in Electrophysics; Complex Systems in Engineering**

Credits: 3 Grading Method: Regular

Topics selected, as announced every semester, from the field of electrophysics and its applications.

Prerequisites: ENEE322 and ENEE324; or students who have taken courses with comparable content may contact the department. Introductory courses in engineering essentially focus on solvable systems that are simple, linear and noise-free. However, real-world systems are generally complex, nonlinear and noisy. This course intends to introduce fundamental concepts related to the analysisof nonlinear and stochastic systems in electrical engineering.

0101	Yanne Chembo	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	PLS 1129

ENEE799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENEE889 **Teaching Workshop**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

Provide training in education for senior PhD students who contemplate an academic career, and give them the opportunity to gain some teaching experience. Emphasis is on issues that are of special importance in electrical and computer engineering education.

Contact department for information to register for this course.

ENEE898 **Pre-Candidacy Research**

(Perm req) Credits: 1-8 Grading Method: Regular

Provide training in education for senior PhD students who contemplate an academic career, and give them the opportunity to gain some teaching experience. Emphasis is on issues that are of special importance in electrical and computer engineering education.

Contact department for information to register for this course.

ENEE899 **Doctoral Dissertation Research**

(Perm req) Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENES Engineering Science Spring 2022

ENES100 **Introduction to Engineering Design**

(Perm req) Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: PS General Education: DSSP

Corequisite: MATH140.

Students work as teams to design and build a product using computer software for word-processing, spreadsheet, CAD, and communication skills.

Credit granted for ENES100 or ENES100A. Non-engineering students can enroll for ENES100A and must request permis sion to do so at eng.umd.edu/keystone/courses.

0101	Catherine Hamel MW 10:00am - 11:50am Class time/details on ELMs	Seats (Total: 34) JMP 1215 ONLINE
0102	Patrick McAvoy MW 10:00am - 11:50am Class time/details on ELMs	Seats (Total: 34) JMP 1116 ONLINE
0201	John Cumings TuTh 10:00am - 11:50am Class time/details on ELMs	Seats (Total: 34) JMP 1215 ONLINE
0202	Jackelyn Lopez Roshwalb TuTh 10:00am - 11:50am Class time/details on ELMs	Seats (Total: 34) JMP 1116 ONLINE

0301	Michael Galczynski MW 12:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 34) JMP 1215 ONLINE
0302	David Kriesberg MW 12:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 34) JMP 1116 ONLINE
0401	Michael Galczynski TuTh 12:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 34) JMP 1215 ONLINE
0501	Michael Galczynski MW 2:00pm - 3:50pm Class time/details on ELMs	Seats (Total: 34) JMP 1215 ONLINE
0502	Joshua Cocker MW 2:00pm - 3:50pm Class time/details on ELMs	Seats (Total: 34) JMP 1116 ONLINE
0601	Brian Danielak TuTh 2:00pm - 3:50pm Class time/details on ELMs	Seats (Total: 34) JMP 1215 ONLINE
0701	Joshua Cocker MW 4:30pm - 6:20pm Class time/details on ELMs	Seats (Total: 34) JMP 1215 ONLINE
0801	Mohammad Ali TuTh 4:30pm - 6:20pm Class time/details on ELMs	Seats (Total: 16) JMP 1215 ONLINE

ENES100A **Introduction to Engineering Design**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: PS | General Education: DSSP

Corequisite: MATH140.

Students work as teams to design and build a product using computer software for word-processing, spreadsheet, CAD, and communication skills.

Restricted to non-engineering students. Credit granted for ENES100 or ENES100A.

0101	Catherine Hamel MW 10:00am - 11:50am Class time/details on ELMs	Seats (Total: 5) JMP 1116 ONLINE
0102	Patrick McAvoy MW 10:00am - 11:50am Class time/details on ELMs	Seats (Total: 5) JMP 1215 ONLINE
0201	John Cumings TuTh 10:00am - 11:50am Class time/details on ELMs	Seats (Total: 5) JMP 1116 ONLINE
0202	Jackelyn Lopez Roshwalb TuTh 10:00am - 11:50am Class time/details on ELMs	Seats (Total: 5) JMP 1215 ONLINE
0301	Michael Galczynski MW 12:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 5) JMP 1116 ONLINE
0302	David Kriesberg MW 12:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 5) JMP 1215 ONLINE
0401	Michael Galczynski TuTh 12:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 5) JMP 1116 ONLINE
0501	Michael Galczynski MW 2:00pm - 3:50pm Class time/details on ELMs	Seats (Total: 5) JMP 1116 ONLINE
0502	Joshua Cocker MW 2:00pm - 3:50pm Class time/details on ELMs	Seats (Total: 5) JMP 1215 ONLINE
0601	Brian Danielak TuTh 2:00pm - 3:50pm Class time/details on ELMs	Seats (Total: 5) JMP 1116 ONLINE

0701	Joshua Cocker MW 4:30pm - 6:20pm Class time/details on ELMs	Seats (Total: 5) JMP 1215 ONLINE	
0801	Mohammad Ali TuTh 4:30pm - 6:20pm Class time/details on ELMs	Seats (Total: 23) JMP 1215 ONLINE	

ENES102 **Mechanics I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Corequisite: MATH140. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering. Formerly: ENES110.

The equilibrium of stationary bodies under the influence of various kinds of forces. Forces, moments, couples, equilibrium, trusses, frames and machines, centroids, moment of inertia, beams, friction, stress/strain, material properties. Vector and scalar methods are used to solve problems.

0101	Aris Cleanthous MW 9:00am - 9:50am F 9:00am - 10:50am	Seats (Total: 50) EGR 1108 ESJ 2212	 Discussion
0301	Thomas Beigel MW 2:00pm - 2:50pm Class time/details on ELMs F 2:00pm - 3:50pm	Seats (Total: 50) EGR 0108 ONLINE EGR 0108	 Discussion
0401	Thomas Beigel MW 10:00am - 10:50am Class time/details on ELMs F 10:00am - 11:50am	Seats (Total: 50) EGR 0108 ONLINE EGR 0108	 Discussion
0701	Thomas Beigel MW 12:00pm - 12:50pm Class time/details on ELMs F 12:00pm - 1:50pm	Seats (Total: 50) EGR 0108 ONLINE EGR 0108	 Discussion
0801	Kevin Calabro MW 1:00pm - 1:50pm F 1:00pm - 2:50pm	Seats (Total: 50) EGR 0108 JMP 3201	 Discussion

0901	Mary Bowden TuTh 2:00pm - 2:50pm F 2:00pm - 3:50pm	Seats (Total: 50) HBK 0115 EGR 1108	 Discussion

ENES108 **Achieving College Success: First Year Transition**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

An exploration of the skills and habits needed to successfully complete the first year of study for Science, Technology, Engineering, and Mathematics (STEM) majors. This course is an extension of the college success seminars taught during the Summer Bridge Program.

Restricted to LSAMP Bridge students only.

0101	Migdalia Maldonado M 5:30pm - 6:30pm	Seats (Total: 25) EGR 2116
0102	Migdalia Maldonado M 6:30pm - 7:30pm	Seats (Total: 25) EGR 2116

ENES114 **Virtus Seminar II**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: ENES113. Restriction: Students must be participants in the Virtus Living and Learning Community.

Focus on personal and professional development with engineering with a strong emphasis on career development. Learn to employ strategies and skills for academic and professional success.

0101	Liza Lebrun W 4:00pm - 5:15pm	Seats (Total: 50) IRB 2107
0201	Liza Lebrun Contact instructor or department for details.	Seats (Total: 20)

ENES116 **FLEXUS Living and Learning Community Seminar II**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES115.

The seminar focuses on personal and professional development by enhancing technical ability, understanding educational options through minors and student projects in engineering, identifying and employing strategies and skills for academic and professional success, and developing career commitment through networking and mentoring. Students develop professional portfolios in preparation for a future internship or job.

0101	Veronica Perrigan W 4:00pm - 5:15pm	Seats (Total: 30) ESJ B0320
0102	Veronica Perrigan Contact instructor or department for details.	Seats (Total: 10)

ENES140 **Discovering New Ventures**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Additional information: This course may count as an elective for a student at the University of Maryland, depending on the student's specific degree program. It cannot be counted towards the requirements for the Smith School of Business Entrepreneurship Fellow Program.

Students explore dynamic company startup topics by working in teams to design a new venture. This multi-disciplinary course helps students to learn the basic business, strategy, and leadership skills needed to launch new ventures. Topics include learning how to assess the feasibility of a startup venture, as well as how to apply best practices for planning, launching, and managing new companies. Students discuss a wide range of issues of importance and concern to entrepreneurs and learn to recognize opportunities, assess the skills and talents of successful entrepreneurs, and learn models that help them navigate uncertainty.

All questions regarding this course should be directed to mtecheducation@umd.edu.

A Fearless Ideas Course from the Academy for Innovation & Entrepreneurship (AIE): http://ter.ps/iamFEARLESS Click here for more information on the Fearless Ideas Courses.

0101	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0201	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0301	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0401	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE

0501	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0601	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0701	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0801	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0901	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
1001	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE

ENES152 **Transfer LEAD Seminar II**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES150. Restriction: Must be an eligible external transfer student in the A. James Clark School of Engineering; and permission of instructor.

This is a continuation of ENES150: Transfer LEAD Seminar I. Transfer LEAD is a program for Engineering transfer students with four main outcomes: Learn, Educate, Adapt, Direct. In this course, students will apply the concepts they learned in ENES150 in a practical setting. Students will focus on engagement, communication, and peer education.

Students must complete ENES150 prior to enrollment and will be granted permission based on completion of ENES150. Students interested in ENES152 should contact the instructor via email at shayes@umd.edu to request permission for the course.

0101	Shannon Buenaflor Class time/details on ELMs	Seats (Total: 10) ONLINE

ENES190H **Introduction to Design and Quality**

Credits: 4

Grading Method: Regular, Pass-Fail

General Education: DSSP

Restriction: Must be in the Quest program. Cross-listed with: BMGT190. Credit only granted for: BMGT190 or ENES190.

QUEST students learn and apply design practices to design new products and services. Working in multidisciplinary teams, students use quality and process improvement methods to identify, analyze, and recommend solutions to real-world problems.

Restricted to QUEST program students. Cross-listed with BMGT190H. Credit granted for BMGT190H or ENES190H.

0101	Pamela Armstrong	Seats (Total: 45)	
	Meets January 24, 2022 - May 20, 2022		
	TuTh 12:30pm - 1:45pm	ESJ 2212	
	Tu 6:00pm - 7:50pm	ESJ 2101	Discussion

ENES192 **Engineering For Us All**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Prerequisite: MATH107. Additional information: Recommended for non-engineering majors.

Students are challenged to uncover hidden valuable connections among a variety of disciplines, while creatively seeking and solving problems as a team. Students learn and practice skills for how groups function and identify innovation while addressing the tensions between our inherent drives to seek and solve, to share, and to sell.

0101	Jackelyn Lopez Roshwalb	Seats (Total: 12)	
	TuTh 1:00pm - 2:50pm	AJC 1114	

ENES210 **Entrepreneurial Opportunity Analysis and Decision-Making in 21st Century Technology Ventures**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: IE | General Education: DSSP, SCIS

Credit only granted for: ENES210 or ENES461.

This multi-disciplinary course helps students learn the principles of entrepreneurial opportunity analysis and decision-making in an increasingly dynamic and technically-inclined society. Emphasis is placed on how aspiring technology entrepreneurs can develop their entrepreneurial perspectives to develop winning entrepreneurial plans for their future ventures.

All questions regarding this course should bedirected to mtecheducation@umd.edu.

0101	James Green Class time/details on ELMs M 9:00am - 9:50am	Seats (Total: 120) ONLINE ESJ 1224
0102	James Green Class time/details on ELMs M 11:00am - 11:50am	Seats (Total: 120) ONLINE ESJ 1224
0103	James Green Class time/details on ELMs M 12:00pm - 12:50pm	Seats (Total: 120) ONLINE ESJ 1224
0104	James Green Class time/details on ELMs Tu 11:00am - 11:50am	Seats (Total: 120) ONLINE ESJ 1202
0105	James Green Class time/details on ELMs Tu 12:30pm - 1:20pm	Seats (Total: 120) ONLINE ESJ 1202
0106	James Green Class time/details on ELMs W 9:00am - 9:50am	Seats (Total: 120) ONLINE ESJ 1224
0107	James Green Class time/details on ELMs W 11:00am - 11:50am	Seats (Total: 120) ONLINE ESJ 1224
0108	James Green Class time/details on ELMs W 12:00pm - 12:50pm	Seats (Total: 120) ONLINE ESJ 1224

ENES214 **Virtus Seminar IV**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: Students must have completed ENES213. Restriction: Students must be participants in the Virtus Living and Learning Community.

Students continue to develop their leadership and mentoring skills, participate in networking opportunities and explore their interest in special engineering topics.

0101	Nicole Mogul, Samantha Sabihi W 5:00pm - 6:30pm	Seats (Total: 20) IRB 1116	

ENES216 **FLEXUS Living and Learning Community Seminar IV**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES115, ENES116, and ENES215. Restriction: Restricted to second year FLEXUS participants.

The seminar focuses on gender diversity and its cross-sections with culture. Students continue to enhance their leadership and mentoring skills, participate in networking opportunities with women in leadership roles and careers in engineering, and engage in opportunities for outreach and service-learning. Students will also complete a culminating semester project.

0101	Nicole Mogul, Samantha Sabihi W 5:00pm - 6:30pm	Seats (Total: 35) IRB 1116	

ENES220 **Mechanics II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENES102; and (MATH141 and PHYS161). Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; and must not be in Engineering: Electrical program.

Stress and deformation of solids-rods, beams, shafts, columns, tanks, and other structural, machine and vehicle members. Topics include stress transformation using Mohr's circle; shear and moment diagrams; derivation of elastic curves; and Euler's buckling formula. Design problems related to this material are given in lab.

0101	Norman Wereley MW 2:00pm - 2:50pm F 2:00pm - 3:50pm	Seats (Total: 50) PHY 4221 PHY 4221	 Discussion
0103	Robert Bonenberger MW 2:00pm - 2:50pm F 2:00pm - 3:50pm	Seats (Total: 50) CHM 2201 KEB 1200	 Discussion
0105	Robert Bonenberger MW 11:00am - 11:50am F 11:00am - 12:50pm	Seats (Total: 50) KEB 1200 CSI 2117	 Discussion

0106	Teng Li MW 11:00am - 11:50am F 11:00am - 12:50pm	Seats (Total: 48) CHE 2118 PHY 2214	 Discussion

ENES221 **Dynamics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENES102; and (MATH141 and PHYS161). Restriction: Must be in a major in ENGR-A. James Clark School of Engineering.

Systems of heavy particles and rigid bodies at rest and in motion. Force-acceleration, work-energy and impulse-momentum relationships. Motion of one body relative to another in a plane and in space.

0101	Kevin Calabro MW 9:00am - 9:50am F 9:00am - 10:50am	Seats (Total: 50) JMP 3201 JMP 3201	 Discussion
0102	Brian Danielak MW 1:00pm - 1:50pm F 1:00pm - 2:50pm	Seats (Total: 50) EGR 1108 HJP 2242	 Discussion
0104	Patrick McAvoy MW 1:00pm - 1:50pm F 1:00pm - 2:50pm	Seats (Total: 50) HBK 0115 IRB 1207	 Discussion

ENES232 **Thermodynamics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS261 and PHYS260. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering. Credit only granted for: BIOE232, CHBE301, ENCH300, ENES232, ENME320, or ENME232. Formerly: ENME232 and ENME320.

Introduction to thermodynamics. Thermodynamic properties of matter. First and second laws of thermodynamics, cycles, reactions, and mixtures.

For all sections of ENES232 there will be common midterm examinations on periodic Thursdays from 7:00-8:15pm.

0101	Catherine Hamel	Seats (Total: 50)	
	TuTh 9:00am - 9:50am F 9:00am - 10:50am Th 7:00pm - 8:15pm	EGR 1202 CCC 1100 Location: TBA	 Discussion Discussion
0102	Jarred Young	Seats (Total: 50)	
	MW 12:00pm - 12:50pm F 12:00pm - 1:50pm Th 7:00pm - 8:15pm	CHE 2108 CSI 3117 Location: TBA	 Discussion Discussion
0201	Ray Sedwick	Seats (Total: 45)	
	TuTh 1:00pm - 1:50pm F 1:00pm - 2:50pm Th 7:00pm - 8:15pm	ITV 1111 CHE 2118 Location: TBA	 Discussion Discussion
0202	Catherine Hamel	Seats (Total: 50)	
	TuTh 2:00pm - 2:50pm F 2:00pm - 3:50pm Th 7:00pm - 8:15pm	PLS 1130 CSI 2117 Location: TBA	 Discussion Discussion
0301	Jarred Young	Seats (Total: 50)	
	MW 3:00pm - 3:50pm F 2:00pm - 3:50pm Th 7:00pm - 8:15pm	EGR 0108 CSI 3117 Location: TBA	 Discussion Discussion
0601	Jarred Young	Seats (Total: 50)	
	MW 10:00am - 10:50am F 10:00am - 11:50am Th 7:00pm - 8:15pm	JMP 3201 KEB 1200 Location: TBA	 Discussion Discussion

ENES240 **Ethical, Policy and Social Implications of Science and Technology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP, SCIS

Restriction: Must be in the Science, Technology, Ethics and Policy minor. Cross-listed with: PLCY240. Credit only granted for: ENES240 or PLCY240.

Asks students to think about how society should manage complexity, transformation, and uncertainty with an eye on developing a broader sense of ethics and social responsibility. Introduces analytical frameworks, concepts, and data collection techniques that interdisciplinary scholars use to map relationships among science, technology and society and generate important questions about the future of society.

0101	Timothy Reedy	Seats (Total: 50)
	TuTh 3:30pm - 4:45pm	EGR 0108

ENES304 **RISE Seminar**

Credits: 1 Grading Method: Regular, Pass-Fail

Restriction: Must be in the Engineering RISE Leadership Program; and permission of ENGR-A. James Clark School of Engineering.

This is the first semester of a two semester sequence taken by RISE students in their first semester in the program. T he purpose of ENES 304 is for RISE students to learn about leadership, acquire leadership skills, and understand how to integrate leadership theories and concepts in engineering practice. There will be a mix of formal lectures by course faculty and lectures by distinguished speakers who can provide their own experience of what leadership means and how it is acquired. Students will explore their own leadership philosophy and leadership capacities in the context of group practice. Students will make meaning of general leadership theories and concepts and understand how to apply them to engineering industry. Students will also gain understanding of leadership through the stories shared by distinguished speakers with industrial, governmental and academic experience.

Contact department for information to register for this course.

ENES305 **RISE Leadership Seminar**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of ENGR-A. James Clark School of Engineering; and ENES304.

This is the second semester of a two semester sequence taken by RISE students in their final semester in the program. The purpose of ENES 305 is for RISE students to learn about leadership, acquire leadership skills, and understand how to integrate leadership theories and concepts in engineering practice. There will be a mix of formal lectures by course faculty and lectures by distinguished speakers who can provide their own experience of what leadership means and how it is acquired. Students will explore their own leadership philosophy and leadership capacities in the context of group practice. Students will make meaning of general leadership theories and concepts and understand how to apply them to engineering industry. Students will also gain understanding of leadership through the stories shared by distinguished speakers with industrial, governmental and academic experience.

Alternating face-to-face/online class meetings, see the instructor for details.

0101	Ken Kiger, William Fourney, Darren Pierre	Seats (Total: 38)
	Tu 5:00pm - 5:50pm	JMP 2222
	Class time/details on ELMs	ONLINE

ENES317 **Introduction to Leadership in Engineering, Science, and Technology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Restriction: Must be in the Minor in Global Engineering Leadership(#EN09). Additional information: Students not meeting restriction requirements should add themselves to the course holdfile. Restrictions DO NOT apply to winter and summer terms.

Develop a comprehensive overview and introduction to leadership and organizational development. Students will reflect on their own leadership experiences, develop a strong foundational knowledge of leadership theory, and advance their capacities in effectively leading teams. Students will connect leadership theory to practice by engaging in case study analysis and critique leadership practices enacted within engineering and technology settings. Students will complete self-assessments to better understand their own leadership strengths and refine their approaches to leadership by incorporating theories covered in this course.

Restricted to students in the Engineering Leadership Development minor (#EN04) and the Global Engineering Leadership minor (#EN09). All others may go on the holdfile.

0101	Darren Pierre M 6:00pm - 8:30pm	Seats (Total: 45) ESJ 0215

ENES338K **Teaching and Learning about Cultural Diversity through Intergroup Dialogue; Equity and Inclusion in Engineering Design**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVCC

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on identity-based topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

Restriction: Must be a student in the A. James Clark School of Engineering.

0201	Vinette Brown-Darlington, John Cumings, Daniel Serrano **Meets January 24, 2022 - March 7, 2022** M 4:00pm - 6:00pm	Seats (Total: 20) EGR 3114
0202	Paige Smith, Suzanne Ashour-Bailey **Meets January 24, 2022 - March 10, 2022** Th 4:00pm - 6:00pm	Seats (Total: 20) EGR 2116

ENES338U **Teaching and Learning about Cultural Diversity through Intergroup Dialogue**

Credits: 1-3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVCC

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on identity-based topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

Contact department for information to register for this course.

ENES390H **Designing Innovative Systems**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES190 or BMGT190. Restriction: Must be in the QUEST program. Cross-listed with: BMGT390. Credit only granted for: BMGT390 or ENES390.

QUEST students develop an understanding of complex systems that incorporate elements of business and technical design and analyze how these systems evolve over time and may be shaped by technology disruptions, internal decisions, and external forces. Students apply these concepts to real-world complex systems in a team environment.

0101	Joseph Bailey	Seats (Total: 55)
	Meets January 24, 2022 - May 22, 2022	
	TuTh 3:30pm - 4:45pm	ESJ 2212

ENES397 **Mentoring Multidisciplinary Teams**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Restriction: Restricted to QUEST Program (TQMP) students. Cross-listed with: BMGT397. Credit only granted for: BMGT397 or ENES397.

QUEST students practice essential skills for mentoring and coaching multidisciplinary teams. These include effective communications, facilitation, conflict resolution, and the ability to motivate. Students will practice these skills as mentors for student teams from BMGT/ENES 190H. In the process, they will strengthen their knowledge of design and quality techniques.

0101	Pamela Armstrong	Seats (Total: 9)
	Tu 5:00pm - 7:40pm	ESJ 2101

ENES424 **Engineering Leadership Capstone: Inclusive Leadership in Addressing Organizational & Societal Challenges**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES472 and ENES317. Restriction: Must be in the Global Engineering Leadership minor (#EN09).

The Minor in Global Engineering Leadership is designed to bring together one's understanding of leadership, organizations, culture, and global studies and apply this synthesized learning to a capstone project. The project will provide real-world application of global leadership principles to address an organizational or societal need. Students will utilize an inclusive leadership and global mindset to propose a big idea which brings about a positive organizational or societal change.

Contact department for information to register for this course.

ENES428 **Engineering Research for Exchange Students**

(Perm req)

Credits: 3-12

Grading Method: Regular, Pass-Fail, Audit

Directed research within the Clark School of Engineering for international exchange students.

Contact department for information to register for this course.

ENES440 **Science, Technology and Society: Certificate Program Capstone**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Science, Technology and Society certificate program; or permission of ENGR-A. James Clark School of Engineering. Credit only granted for: ENES440 or UNIV401. Formerly: UNIV401.

Capstone research seminar for students in the Science, Technology and Society certificate program.

0101	David Tomblin	Seats (Total: 25)
	Contact instructor or department for details.	
	Contact instructor or department for details.	

ENES458B **Topics in International Engineering; Engineers Without Borders: Leadership Seminar-Brazil**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

A variety of topics related to engineering in a global context are discussed including cultural aspects, cross-cultural communication, international standards and law, and engineering and technology issues, business behavior, attitudes and values of selected countries and regions.

Contact department for information to register for this course.

ENES458I **Topics in International Engineering; Engineers Without Borders Project Implementation**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

A variety of topics related to engineering in a global context are discussed including cultural aspects, cross-cultural communication, international standards and law, and engineering and technology issues, business behavior, attitudes and values of selected countries and regions.

Contact department for information to register for this course.

ENES459 **Study Abroad Special Topics in Engineering IV**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course in engineering science taken as part of an approved study abroad program.

2301	Peter Chang Contact instructor or department for details.	Seats (Total: 1)

ENES461 **Advanced Entrepreneurial Opportunity Analysis in Technology Ventures**

Credits: 3 Grading Method: Regular, Pass-Fail

Credit only granted for: ENES210 or ENES461.

Explores the factors that influence entrepreneurial opportunity analysis in technology-based ventures. Uses a cognitive theoretical framework to examine the integration of motivation, emotions and information processing modes to make complex entrepreneurial decisions in technology venture environments.

Credit only granted for ENES210 or ENES461.

0101	James Green Class time/details on ELMs	Seats (Total: 280) ONLINE
0201	James Green Class time/details on ELMs	Seats (Total: 280) ONLINE

ENES462 **Marketing High-Technology Products and Innovations**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Permission of ENGR-Maryland Technology Enterprise Institute. Additional information: Course may not be used to fulfill any BMGT major or minor program requirement.

Examines the opportunities and challenges of marketing high-technology products in turbulent environments requiring rapid decision making with incomplete information. Explores how innovations are introduced at frequent intervals, research-and-development spending is vital, and there are high mortality rates for both products and businesses.

All questions regarding this course should be directed to mtecheducation@umd.edu.

0101	Michael Pratt, James Green	Seats (Total: 32)
	TuTh 5:00pm - 6:15pm	SCC 2121

ENES466 **Leading and Financing the Technology Venture**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Permission of ENGR-Maryland Technology Enterprise Institute. Credit only granted for: ENES466, BMGT365, SMLP471 or HLMN471. Additional information: Course may not be used to fulfill any BMGT major or minor program requirement.

Focuses on the challenges of leading and financing new technology ventures. Leadership topics include team selection and formation, aligning rewards with relative contributions of team members, and how early decisions can enable or prevent founders from achieving results that align with their individual motivations for becoming an entrepreneur. Essential tools and methods for building a strong financial foundation for a new technology venture are examined. Includes important accounting principles as well as methods for keeping financial control of the technology venture. Insights are shared on navigating the multitude of financial barriers that may block your entrepreneurial success, as well as how to grow the technology venture from concept through launch.

All questions regarding this course should be directed to mtecheducation@umd.edu.

0101	Michael Pratt	Seats (Total: 40)
	Class time/details on ELMs	ONLINE
	Restricted to students in the Minor in Technology Entrepreneurship	

ENES467 **Engineering for Social Change**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must not be in Engineering: Mechanical program; and junior standing or higher; and must be in a major in ENGR-A. James Clark School of Engineering. Cross-listed with: ENME467. Credit only granted for: ENES467 or ENME467.

Critical analysis of issues at the intersection of engineering, philanthropy and social change. How engineering design, products and processes have created social change in the past and will do so in the future through both intended and unintended consequences. Topics covered include energy, sustainability and climate change, autonomy, the digital future, low cost engineering, manufacturing, philanthropy, ethics and the impact of electronics on society, among others. Faculty and external experts will engage with students on these topics. Students will broadly engage with organizations involved in using technology for positive social impact.

0101	Sami Ainane, Davinder Anand M 3:30pm - 5:00pm Tu 3:30pm - 5:00pm	Seats (Total: 50) CHM 1402 KEB 1200	 Discussion
0102	Davinder Anand, Sami Ainane M 3:30pm - 5:00pm Th 3:30pm - 5:00pm	Seats (Total: 50) CHM 1402 KEB 1200	 Discussion

ENES471 **Legal Aspects of Entrepreneurship**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Additional information: Course may not be used to fulfill any BMGT major or minor program requirement.

Explores critical legal and business issues entrepreneurs face as they build and launch a new venture. Examines real world scenarios, and addresses the legal issues at all of the important junctures along the path to success. Significant attention placed on new venture formation, intellectual property management, and financing arrangements.

Restriction: Permission of ENGR-Maryland Technology Enterprise Institute

0101	Wilson White Class time/details on ELMs	Seats (Total: 21) ONLINE	

ENES472 **Leading Global Teams and Engaging Across Cultures in Business, Engineering, and Technology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

Restriction: Sophomore standing or higher; must be a minor in Global Engineering Leadership (#EN09), Global Poverty (#AG06), Global Terrorism Studies (#BS07), or International Development and Conflict Management (#BS02). Credit only granted for: ENES472, SLLC471, or SLLC473. Additional information: Students not meeting restriction requirements should add themselves to the course holdfile. Restrictions DO NOT apply to winter and summer terms.

Develop global leadership capacities and an understanding of the cultural aspects pertaining to industry and international business. In a globalized world, the ability to work, lead and communicate in culturally diverse settings has become a core component to leadership. Through real-world examples, research, and simulations, students will increase their self-awareness and understanding of culture and how culture influences attitudes, behaviors, and practices at the individual, organizational, or societal levels. Students will develop the skills necessary to navigate, negotiate, and lead cross-cultural engagements and teams. The course content is relevant and applicable to anyone interested in developing cross-cultural leadership competencies and cultivating a global mindset.

0101	Darren Pierre W 5:00pm - 6:30pm Class time/details on ELMs	Seats (Total: 45) KEB 1200 ONLINE

ENES481 **Engineering Honors Seminar II**

Credits: 1 Grading Method: Regular, Pass-Fail

Restriction: Must be in College of Engineering Honors; and junior standing or higher.

Introduction to engineering creativity and innovation in engineering. Application of methods of creativity to topics in communication, conducting research, and leadership.

0101	Wesley Lawson F 10:00am - 10:50am	Seats (Total: 30) EGR 0135
0201	Wesley Lawson F 1:00pm - 1:50pm	Seats (Total: 30) EGR 0135

ENES489A **Special Topics in Engineering; Applied Quantitative Analysis**

Credits: 3-6 Grading Method: Regular, Pass-Fail, Audit

Special topics in engineering.

Restricted to QUEST students. Cross-listed with ENES498A. Credit granted for BMGT438A or ENES489A.

0101	Joseph Bailey TuTh 2:00pm - 3:15pm	Seats (Total: 55) ESJ 2212

ENES489P **Special Topics in Engineering; Hands-on Systems Engineering Projects**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics in engineering.

This hands-on design projects course will expose senior-level undergraduates and graduate students from all areas of engineering to to exciting career opportunities in the systems engineering field. Students will be introduced to the technical aspects of systems engineering practice through team-based project development and a systematic step-by-step procedure for product development that includes defining operations concepts, requirements gathering and organization, synthesis of models of system behavior and system structure, functional allocationto create system design alternatives, formal assessment of design alternatives through tradeoff analysis, and established approaches to testing and validation/verification. The students will be introduced to modern methods in Model-Based Systems Engineering, and industrial strength tools and environments for complex systems synthesis. Team projects may address problems from a wide variety of disciplines or cross-disciplines.

0101	Mumu Xu Tu 12:30pm - 1:45pm Th 3:30pm - 4:45pm	Seats (Total: 24) EGR 1108 AVW 2446	 Lab
0201	Mumu Xu Tu 12:30pm - 1:45pm Th 5:00pm - 6:15pm	Seats (Total: 24) EGR 1108 AVW 2446	 Lab

ENES490H **QUEST Capstone Professional Practicum**

Credits: 4 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Prerequisite: ENES390 or BMGT390. Cross-listed with: BMGT490. Credit only granted for: BMGT490 or ENES490.

The capstone course for the QUEST Honors Program provides students with an opportunity to learn in multidisciplinary teams of business, engineering, and science students in a real-world setting. Companies engage teams of QUEST students with real organizational challenges and dedicate resources to help students address these problems. Student teams must enhance their skills in quality management, process improvement, and systems design and will apply these to add value to a client. In the process, students will improve their teamwork skills.

Restricted to QUEST program students. Cross-listed with BMGT490H. Credit granted for BMGT490H or ENES490H.

0101	Hassan Ibrahim, David Ashley W 5:00pm - 7:40pm Contact instructor or department for details.	Seats (Total: 45) ESJ 2309	

ENES491 **Scoping Experiential Learning Projects**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BMGT190 or ENES190. Restriction: Restricted to QUEST Program (TQMP) students. Cross-listed with: BMGT491. Credit only granted for: BMGT491 or ENES491.

QUEST students cultivate relationships with new and current corporate partners and prepare project scopes for QUEST's introductory course, BMGT/ENES 190H, and capstone course, BMGT/ENES 490H. Requires independent work communicating with clients and class visits to a variety of potential project sites.

0101	Jessica Roffe F 10:00am - 12:40pm	Seats (Total: 9) VMH 3330H

ENES498R **Special Topics in Entrepreneurship; Fearless Founders: New Venture Practicum**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This entrepreneurship seminar and case study-based course will explore technology entrepreneurship with a focus on leadership, marketing, team-building, and management of new technology ventures and assumes baseline knowledge of entrepreneurship. Students will learn skills needed to succeed as a technology entrepreneur and how to apply best practices for planning, launching, and growing new companies. This course is a requirement of the Hinman CEOs program.

Prerequisite: Permission of ENGR-A. James Clark School of Engineering. Cross-listed with BMGT468R. Credit granted for BMGT468R or ENES498R. Students seeking permission to enroll in this course may email lbyram@umd.edu.

0101	Oliver Schlake M 5:00pm - 7:40pm Contact instructor or department for details.	Seats (Total: 25) VMH 1314

ENES601 **Future Faculty Program Seminar I**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

Restriction: Must be in the Clark School Future Faculty Program.

Introduction to and development of skills necessary to obtain and succeed in a university faculty position. Emphasis on technical writing and effective presentations. Discussion of research diversification, networking, ethics and professionalism.

0101	Amy Karlsson Th 3:30pm - 4:45pm	Seats (Total: 25) AJC 2134

ENES603 **Future Faculty Program Seminar III**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

Restriction: Must be in the Clark School Future Faculty Program.

Developing a successful faculty research program. Establishing and maintaining a research group. Finding funding opportunities and writing grant proposals. Mentoring graduate students. Faculty position application process. Preparing research and teaching statements.

0101	Norman Wereley, Alison Flatau	Seats (Total: 25)
	Th 3:30pm - 4:30pm	EGR 2154

ENES604 **Future Faculty Program Teaching Practicum**

Credits: 1 Grading Method: Regular, Audit

Prerequisite: ENES602. Restriction: Must be a graduate student in the Clark School Future Faculty Program; and students for whom English is not the native language must pass the Maryland English Institute ITA Evaluation prior to enrolling in this course.

Graduate students will co-teach a course under supervision of a faculty mentor. Graudate students will be involved in all aspects of the course including development of syllabus, presenting lectures, writing and grading examiniations, and evaluating the students in the course.

Restricted to the students in the Future Faculty program.

0101	Min Wu	Seats (Total: 25)
	Contact instructor or department for details.	

ENES662 **Innovative Ideas and Concept Development**

Credits: 3 Grading Method: Regular

Enables aspiring entrepreneurs to understand the content, methods, and models for new venture opportunity assessment and analysis. Focuses on how to identify and analyze entrepreneurial opportunities for technology-based ventures by first understanding the personal self and decision-making factors. Explores how to evaluate new venture opportunities and challenges within industries and markets.

PLM1	James Green	Seats (Total: 25)
	Meets February 28, 2022 - May 18, 2022	
	Class time/details on ELMs	ONLINE
	Students in the MPS in Technology Entrepreneurship may register without permission. All other graduate students may contact mpte@umd.edu for permission to enroll.	

ENES663 **Strategies for Managing Innovation**

Credits: 3 Grading Method: Regular

Emphasizes how innovative leaders can use strategic management of innovation and technology to enhance firm performance. It helps students to understand the process of technological change; the ways that firms come up with innovations; the strategies that firms use to benefit from innovation; and the process of formulating technology strategy. It provides frameworks for analyzing key aspects of these industries and teaches students how to apply these frameworks.

PLM1	Sharon Flank	Seats (Total: 25)
	Meets February 28, 2022 - May 18, 2022	
	Class time/details on ELMs	ONLINE
	Students in the MPS in Technology Entrepreneurship may register without permission. All other graduate students may contact mpte@umd.edu for permission to enroll.	

ENES666 **Creative Design, Prototyping, and Testing**

Credits: 3 Grading Method: Regular

Transition from creative, innovative, design thinking methods to prototyping and concept testing of products and services. Learn how to translate ideas into marketable offerings to create real value for customers and the new venture. Emphasis is placed on an integrated and interdisciplinary approach to engineering design, concurrent engineering, design for manufacturing, industrial design, and the business of new product development. Topics include design methods, modeling and simulation, material and manufacturing process selection, platform and modular design, mass customization, planning and scheduling, and business issues, teamwork, group dynamics, creativity, and innovation.

PLM1	James Green	Seats (Total: 25)
	Meets February 28, 2022 - May 18, 2022	
	Class time/details on ELMs	ONLINE
	Students in the MPS in Technology Entrepreneurship may register without permission. All other graduate students may contact mpte@umd.edu for permission to enroll.	

ENES667 **Market Development and Commercialization**

Credits: 3 Grading Method: Regular

Provides an orientation to key marketing concepts critical to marketing technology-based products and services. Learn to identify market opportunities, understand customer preferences, evaluate market acceptance, and devise the appropriate going to market strategies for the new venture.

PLM1	Olufunlola Koiki	Seats (Total: 25)
	Meets February 28, 2022 - May 18, 2022	
	Class time/details on ELMs	ONLINE
	Students in the MPS in Technology Entrepreneurship may register without permission. All other graduate students may contact mpte@umd.edu for permission to enroll.	

ENES672 **Launching Technology Startup Ventures**

Credits: 6 Grading Method: Regular

Explores the processes and skills needed to launch and manage technology startup ventures. Learn how to apply best practices for planning, launching, and leading new companies. Discusses a wide range of issues of importance and concern to entrepreneurs, to include how to navigate uncertainty.

PLM1	Mark Komisky	Seats (Total: 25)
	Meets February 28, 2022 - May 18, 2022	
	Class time/details on ELMs	ONLINE
	Students in the MPS in Technology Entrepreneurship may register without permission. All other graduate students may contact mpte@umd.edu for permission to enroll.	

ENFP Engineering, Fire Protection Spring 2022

ENFP101 **Introduction to Fire Protection Engineering**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ENGR-Fire Protection Engineering department. Credit only granted for: ENFP108 or ENFP101. Formerly: ENFP108.

This course will introduce students to the impact of fire on people, property and the environment and methods to mitigate the threat of fire. Student teams will apply the principles of fire behavior and fire safety systems covered in the first half of the course to design, build and test a fire safe, small-scale apartment. A final experiment will be conducted to provide an assessment of the complete designs of each team.

0101	Peter Sunderland	Seats (Total: 20)
	M 12:00pm - 12:50pm	PLS 1184

ENFP201 **Numerical Methods with MatLab**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH141. Restriction: Must be in Engineering: Fire Protection program.

A broad range of numerical methods are illustrated and applications related to engineering problems are implemented using Mat Lab thus providing a working knowledge of this computational tool. The topics covered in the course include: finding roots of equations with bracketing and open methods; solving linear systems of equations with matrices, Gauss elimination, LU decomposition, and iterative methods; linear regression, polynomial interpolation; numerical integration and numerical differentiation; ordinary and partial differential equations. Additional topics such as optimization, eigenvalues, Fourier analysis, splines, and Romberg integration may be included as time allows.

0101	Stanislav Stoliarov	Seats (Total: 25)	
	TuTh 3:30pm - 4:45pm	JMP 2202	

ENFP310 **Water Based Fire Protection Systems Design**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENFP300. Corequisite: ENFP312. Restriction: Permission of ENGR-Fire Protection Engineering department.

Introduction to aqueous fire suppression. Discussion of key fluid dynamics and heat transfer processes in aqueous fire suppression. System design and performance analysis based on national standards, hydraulic theory and elementary fluid dynamics and heat transfer.

0101	Kenneth Isman	Seats (Total: 30)	
	MF 11:00am - 11:50am	AJC 2119	
	W 11:00am - 12:50pm	ESJ 2212	Discussion

ENFP312 **Heat and Mass Transfer**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES232 and ENFP300. Restriction: Permission of ENGR-Fire Protection Engineering department. Credit only granted for: ENFP312 or ENME332.

Fundamentals of heat and mass transfer. Conduction, convection, and radiation modes of heat transfer. Diffusion concepts and evaporation phenomena. Problem solving techniques with application to fire problems.

0101	Dushyant Chaudhari	Seats (Total: 30)	
	TuTh 11:00am - 12:15pm	EGR 1104	
	F 12:00pm - 1:50pm	EGR 1104	Discussion

ENFP350 **Professional Development Seminar**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ENGR-Fire Protection Engineering department. Restriction: Junior standing or higher.

An integrative, upper level professional development seminar covering topics such as engineering ethics, professional licensing, codes and standards, intellectual property, career selection and various contemporary issues in fire protection engineering.

0101	Rosalie Wills	Seats (Total: 30)	
	M 5:00pm - 5:50pm	JMP 1202	

ENFP411 **Risk-Informed Performance Based Design**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Senior standing; or permission of ENGR-Fire Protection Engineering department.

Appraisal and measurement of fire safety. Application of systems analysis, probability theory, engineering economy and risk management in the identification and synthesis of components of fire protection engineering. Methods for the development of criteria for the design, evaluation and assessment of fire safety or component hazards.

0101	James Milke	Seats (Total: 50)	
	TuTh 2:00pm - 3:15pm	IRB 1207	
	W 3:30pm - 4:45pm	CHM 2201	Discussion

ENFP413 **Human Response to Fire**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENFP250. Restriction: Permission of ENGR-Fire Protection Engineering department. Jointly offered with ENFP613. Credit only granted for: ENFP413 or ENFP613.

Fractional effective dose (FED) methods for predicting time to incapacitation and death of fires for use in fire safety calculations. Physiology and toxicology of the fire effluent components, decomposition chemistry of common materials, standard experimental approaches. Predictive models of material production rates. People movement characteristics related to building evacuation. Formulation and application of evacuation models. Human behavior factors affecting response of people to fire situations.

0101	Chris Campbell, James Milke TuTh 9:30am - 10:45am	Seats (Total: 30) CHE 2118	

ENFP420 **Fire Assessment Methods and Laboratory**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Student must have senior standing; and minimum grade of C- in ENFP312. Restriction: Must be in Engineering: Fire Protection program. Credit only granted for: ENFP320 or ENFP420. Formerly: ENFP320.

Experimental evaluation of ignition, flame spread, rate of heat release and smoke production of flammable gases, liquids, solids, and interior finish materials. Analytical and computer methods for the design, performance, and analysis of fire experiments. Preparation of laboratory reports.

0101	Peter Sunderland TuTh 12:30pm - 1:45pm W 11:00am - 12:15pm	Seats (Total: 13) PHY 1204 JMP 3229	 Lab
0102	Peter Sunderland TuTh 12:30pm - 1:45pm W 12:00pm - 1:15pm	Seats (Total: 13) PHY 1204 JMP 3229	 Lab
0103	Peter Sunderland TuTh 12:30pm - 1:45pm W 1:00pm - 2:15pm	Seats (Total: 13) PHY 1204 JMP 3229	 Lab
0104	Peter Sunderland TuTh 12:30pm - 1:45pm W 2:00pm - 3:15pm	Seats (Total: 13) PHY 1204 JMP 3229	 Lab

ENFP426 **Computational Methods in Fire Protection**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: ENFP425. Restriction: Permission of ENGR-Fire Protection Engineering department.

Introduction to computer-based fire modeling: zone modeling and Computational Fluid Dynamics (CFD); documentation of input data, validation and verification tests.

0101	Arnaud Trouve TuTh 3:30pm - 4:45pm	Seats (Total: 50) CSI 1122	

ENFP429 **Independent Studies**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

For students who have definite plans for individual study of approved problems, or study of an advanced topic selected in conjunction with the faculty.

Senior standing. For ENFP majors only.

Contact department for information to register for this course.

ENFP465 **Fire and Explosion Investigations**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Student should have senior standing. Restriction: Permission of ENGR-Fire Protection Engineering department. Credit only granted for: ENFP489N, ENFP629N OR ENFP665. Formerly: ENFP489N. Additional information: The course will be taught as a shared senior-level undergraduate course and graduate course.

This course covers many aspects of fire and explosion investigation and reconstruction. Information on field techniques, applicable standards, and best practices are presented with an emphasis on how fire science and fire dynamics can be applied to forensic analysis. Experiments are performed and analyzed to demonstrate the concepts.

0101	Thomas DeBold	Seats (Total: 40)
	M 9:30am - 10:45am W 9:30am - 10:45am	CHM 2201 ONLINE

ENFP489 **Special Topics**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance to fire protection.

For ENFP majors only.

Contact department for information to register for this course.

ENFP613 **Advanced Life Safety Analysis**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Restriction: Permission of ENGR-Fire Protection Engineering department. Credit only granted for: ENFP413 or ENFP613.

Fractional effective dose (FED) methods for predicting time to incapacitation and death of fires for use in fire safety engineering calculations. Physiology and toxicology of fire effluent components, decomposition chemistry of common materials, standard experimental approaches. Predictive models of material production rates. People movement characteristics related to building evacuation. Formulation and application of evacuation models. Human behavior factors affecting response of people to fire situations.

0101	Chris Campbell, James Milke	Seats (Total: 15)
	TuTh 9:30am - 10:45am	CHE 2118

ENFP619 **Graduate Seminar**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

0101	Arnaud Trouve	Seats (Total: 10)
	Contact instructor or department for details.	
	Contact instructor or department for details.	

ENFP620 **Fire Dynamics Laboratory**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Recommended: ENFP415.

Laboratory experiments are designed to illustrate fire phenomena and test theoretical models. Diffusion flames, ignition and flame spread on solids, liquid pool fires, wood crib fires, fire plumes, compartment fires.

0101	Fernando Raffan Montoya	Seats (Total: 20)
	Th 2:00pm - 5:50pm	HBK 0108
	Contact instructor or department for details.	

ENFP625 **Advanced Fire Modeling**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of ENGR-Fire Protection Engineering department.

Validity, utility, reliability of current computer models. Applications of models in risk assessment, underwriting, loss prediction, hazard analysis. Development and validation of specific application models.

EF01	Arnaud Trouve	Seats (Total: 40)
	Class time/details on ELMs	ONLINE
	Permission: MAGE permission required for this section.	

ENFP626 **Computational Fire Modeling**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENFP300 and ENFP312. Restriction: Permission of ENGR-Fire Protection Engineering department.

Introduction to Computational Fluid Dynamics (CFD)-based fire modeling; governing equations of turbulent reacting flows; numerical approaches to the treatment of turbulence (DNS, LES, RANS); numerical methods for partial differential equations; physical modeling of enclosure fires (turbulence, combustion, thermal radiation, pyrolysis, suppression). Development of sample programs (Matlab) and use of current CFD-based fire models (FDS).

0101	Arnaud Trouve	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	CHE 2145

ENFP629 **Selected Topics**

(Perm req)

Credits: 3-6

Grading Method: Regular, Audit

Current research, studies in fire protection engineering. Future trends and significant changes in research, professional areas. The professional standards process.

Contact department for information to register for this course.

ENFP649 **Special Problems**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit

Advanced topics selected by the faculty from the current literature to suit the special needs and background of students, or for individual students who have definite plans of individual study.

Prerequisite: permission of department.

Contact department for information to register for this course.

ENFP662 **Performance Based Design**

Credits: 3

Grading Method: Regular, Audit

Credit only granted for: ENFP629E or ENFP662. Formerly: ENFP629E.

This on-line course demonstrates how fire science can be used to solve fire protection problems in the built environment and will provide an understanding of their performance-based design process, deterministic and risk-based analysis techniques, development of design fire scenarios, trial design development and analysis, and building lifecycle management.

EF01	Eric Rosenbaum, Morgan Hurley	Seats (Total: 40)
	Class time/details on ELMs	ONLINE
	Permission: MAGE permission required for this section.	

ENFP665 **Advanced Fire and Explosion Investigations**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of the Fire Protection Engineering department. Jointly offered with: ENFP465. Credit only granted for: ENFP629N, ENFP489N OR ENFP465. Formerly: ENFP629N. Additional information: The course will be taught as a shared senior-level undergraduate course and graduate course.

This course covers many advanced aspects of fire and explosion investigation and reconstruction. Information on field techniques, applicable standards, and best practices are presented with an emphasis on how advanced fire science and fire dynamics can be applied to forensic analysis. Experiments are performed and analyzed to demonstrate the concepts.

0101	Thomas DeBold	Seats (Total: 15)
	M 9:30am - 10:45am	CHM 2201
	W 9:30am - 10:45am	ONLINE

ENFP799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Development and completion of Master's Thesis.

Contact department for information to register for this course.

ENGL English Spring 2022

FOR MORE DETAILED DESCRIPTIONS OF THE COURSES OFFERED, CLICK HERE TO VISIT THE ENGLISH DEPARTMENT WEBSITE English as a second language classes are listed under UMEI.

ENGL101 **Academic Writing**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: FSAW

Additional information: Students must complete this course with a minimum grade of C- in order to fulfill the General Education Fundamental Studies Academic Writing requirement.

An introductory course in expository writing.

Students with a TSWE score of 33 or below must take ENGL 101A in place of ENGL 101. Students for whom English is a second language should consider taking ENGL 101X in place of ENGL 101.

0001	Michael Dignan MWF 8:00am - 8:50am	Seats (Total: 19) TWS 0201
0002	Brianne Friel MWF 8:00am - 8:50am	Seats (Total: 19) TWS 0214
0101	John Rendeiro MWF 9:00am - 9:50am	Seats (Total: 19) TWS 0221
0102	Brianne Friel MWF 9:00am - 9:50am	Seats (Total: 19) TWS 0214
0103	Anthony Batts MWF 9:00am - 9:50am	Seats (Total: 19) TWS 1106
0104	Zachary Frank MWF 9:00am - 9:50am	Seats (Total: 19) TWS 0236
0105	William Pittman MWF 9:00am - 9:50am	Seats (Total: 19) TWS 0205
0106	Kelly Tracy MWF 9:00am - 9:50am	Seats (Total: 19) KEY 0102
0201	John Rendeiro MWF 10:00am - 10:50am	Seats (Total: 19) TWS 1310
0202	Cameron Mozafari MWF 10:00am - 10:50am	Seats (Total: 19) TWS 0232
0203	Sabrina Islam MWF 10:00am - 10:50am	Seats (Total: 19) TWS 3134

0204	Kelly Tracy MWF 10:00am - 10:50am	Seats (Total: 19) KEY 0102
0205	Tyra Griffin MWF 10:00am - 10:50am	Seats (Total: 19) KEY 0121
0206	Andy Yeh MWF 10:00am - 10:50am	Seats (Total: 19) KEY 0125
0207	Erica Cochran MWF 10:00am - 10:50am	Seats (Total: 19) TWS 3132
0301	Justin Thompson MWF 11:00am - 11:50am	Seats (Total: 19) TWS 3134
0302	Emilee Durand MWF 11:00am - 11:50am	Seats (Total: 19) KEY 0120
0303	Chika Onyenezi MWF 11:00am - 11:50am	Seats (Total: 19) ONLINE
0304	Stephanie Allen MWF 11:00am - 11:50am	Seats (Total: 19) KEY 0121
0305	Anthony Batts MWF 11:00am - 11:50am	Seats (Total: 19) ASY 3207
0308	Sabrina Islam MWF 11:00am - 11:50am	Seats (Total: 19) TWS 3136
0309	Peter Rouleau MWF 11:00am - 11:50am	Seats (Total: 19) TWS 3132
0401	Stephanie Allen MWF 12:00pm - 12:50pm	Seats (Total: 19) KEY 0123
0402	Andrew Howard MWF 12:00pm - 12:50pm	Seats (Total: 19) KEY 0102
0403	Thomas Earles MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 3252

0404	Sabrina Islam MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 3134
0405	Chika Onyenezi MWF 12:00pm - 12:50pm	Seats (Total: 19) ONLINE
0406	Kelly Tracy MWF 12:00pm - 12:50pm	Seats (Total: 19) KEY 0121
0407	Anthony Batts MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 3136
0501	Anthony Batts MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 3250
0502	Caroline Rothrock MWF 1:00pm - 1:50pm	Seats (Total: 19) KEY 0123
0503	Kelly Tracy MWF 1:00pm - 1:50pm	Seats (Total: 19) KEY 0102
0504	Peter Rouleau MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 3252
0505	Shannon Zellars Strohl MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 0207
0506	Kiera Wolfe MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 1321
0507	Sabrina Islam MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 3134
0601	Liam Daley MWF 2:00pm - 2:50pm	Seats (Total: 19) KEY 0102
0602	Nicole Cuffy MWF 2:00pm - 2:50pm	Seats (Total: 19) TWS 3250
0603	Kiera Wolfe MWF 2:00pm - 2:50pm	Seats (Total: 19) TWS 1106

0604	Anthony Batts MWF 2:00pm - 2:50pm	Seats (Total: 19) TWS 3252
0605	John Rendeiro MWF 2:00pm - 2:50pm	Seats (Total: 19) TWS 1321
0701	Shannon Zellars Strohl MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 0201
0702	Fernando Duran MW 6:30pm - 7:45pm	Seats (Total: 19) KEY 0121
1002	Alan Montroso TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 0236
1003	Andrew Howard TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 1106
1101	Alan Montroso TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0236
1102	Andrew Howard TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0214
1104	Daniel Sidman TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 3132
1106	Melvette Davis TuTh 9:30am - 10:45am	Seats (Total: 19) ONLINE
1108	Brianne Friel TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 3134
1109	Andy Yeh TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 1105
1203	Mike Kolakoski TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 1107
1204	John Macintosh TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1172

1205	Kathryn Karoly TuTh 11:00am - 12:15pm	Seats (Total: 19) KEY 0123
1206	Melvette Davis TuTh 11:00am - 12:15pm	Seats (Total: 19) ONLINE
1207	Lara Payne TuTh 11:00am - 12:15pm	Seats (Total: 19) ONLINE
1208	Connor Watkins TuTh 11:00am - 12:15pm	Seats (Total: 19) KEY 0125
1209	Nia Crawford TuTh 11:00am - 12:15pm	Seats (Total: 19) ONLINE
1301	Dominique Young TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 0230
1302	Peter Grybauskas TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 3132
1303	Eve Ettinger TuTh 12:30pm - 1:45pm	Seats (Total: 19) ASY 3207
1304	Nia Crawford TuTh 12:30pm - 1:45pm	Seats (Total: 19) KEY 0125
1305	Lisa Latouche TuTh 12:30pm - 1:45pm	Seats (Total: 19) JMZ 0118
1306	Mike Kolakoski TuTh 12:30pm - 1:45pm	Seats (Total: 19) KNI 1103
1309	Daniel Sidman TuTh 12:30pm - 1:45pm	Seats (Total: 19) ONLINE
1401	Nia Crawford TuTh 2:00pm - 3:15pm	Seats (Total: 19) KEY 0123
1402	Lisa Latouche TuTh 2:00pm - 3:15pm	Seats (Total: 19) KEY 0125

1403	Mike Kolakoski TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 1107
1405	Kathleen Orr TuTh 2:00pm - 3:15pm	Seats (Total: 19) JMZ 2123
1406	Alan Montroso TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 0221
1601	Joshua Weiss TuTh 5:00pm - 6:15pm	Seats (Total: 19) TWS 0236
1701	Sara Faradji TuTh 6:30pm - 7:45pm	Seats (Total: 19) TWS 0205
9001	Radford Skudrna Tu 9:30am - 10:45am Th 9:30am - 10:45am	Seats (Total: 19) KEY 0120 ONLINE
9002	Susan Pramschufer Tu 11:00am - 12:15pm Th 11:00am - 12:15pm	Seats (Total: 19) KEY 0120 ONLINE
9003	Katherine Joshi Th 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 19) KEY 0120 ONLINE
9004	Rachel Waugh Th 11:00am - 12:15pm Tu 11:00am - 12:15pm	Seats (Total: 19) KEY 0120 ONLINE
9005	David Brookshire MF 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 19) KEY 0120 ONLINE
9006	David Brookshire MF 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 19) KEY 0120 ONLINE

9007	Katherine Joshi Tu 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 19) TWS 3252 ONLINE
9008	Radford Skudrna Tu 11:00am - 12:15pm Th 11:00am - 12:15pm	Seats (Total: 19) TWS 3252 ONLINE
9009	Radford Skudrna Tu 12:30pm - 1:45pm Th 12:30pm - 1:45pm	Seats (Total: 19) KEY 0120 ONLINE
9010	Katherine Joshi Tu 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 19) KEY 0120 ONLINE
9011	Emily Flamm MW 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 19) TWS 0201 ONLINE
9012	Emily Flamm MW 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 19) TWS 0201 ONLINE
9013	Robert Lucci MW 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 19) TWS 0201 ONLINE
9014	Robert Lucci MW 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 19) TWS 0201 ONLINE
9015	Amanda Allen Th 9:30am - 10:45am Tu 9:30am - 10:45am	Seats (Total: 19) TWS 3252 ONLINE
9016	Amanda Allen Th 11:00am - 12:15pm Tu 11:00am - 12:15pm	Seats (Total: 19) TWS 3252 ONLINE

9017	Amanda Allen Th 12:30pm - 1:45pm Tu 12:30pm - 1:45pm	Seats (Total: 19) KEY 0120 ONLINE
9018	Katherine Joshi Th 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 19) KEY 0120 ONLINE
9019	David Brookshire MF 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 19) KEY 0123 ONLINE
9020	David Brookshire MF 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 19) KEY 0123 ONLINE
9021	Susan Pramschufer Tu 12:30pm - 1:45pm Th 12:30pm - 1:45pm	Seats (Total: 19) KEY 0102 ONLINE
9022	Rachel Waugh Th 12:30pm - 1:45pm Tu 12:30pm - 1:45pm	Seats (Total: 19) KEY 1117 ONLINE

ENGL101A **Academic Writing**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSAW

Additional information: Students must complete this course with a minimum grade of C- in order to fulfill the General Education Fundamental Studies Academic Writing requirement.

An introductory course in expository writing.

1703	Mike Kolakoski TuTh 9:30am - 10:45am	Seats (Total: 15) TWS 3250

ENGL101H **Academic Writing**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSAW

Additional information: Students must complete this course with a minimum grade of C- in order to fulfill the General Education Fundamental Studies Academic Writing requirement.

An introductory course in expository writing.

0507	Carina Shi TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 0214

ENGL101S **Academic Writing**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSAW

Additional information: Students must complete this course with a minimum grade of C- in order to fulfill the General Education Fundamental Studies Academic Writing requirement.

An introductory course in expository writing.

Restricted to College Park Scholars.

0109	Emilee Durand MWF 9:00am - 9:50am	Seats (Total: 19) CCC 1105
0309	Lara Payne MW 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 19) CCC 1111 ONLINE
0609	Cameron Mozafari MWF 2:00pm - 2:50pm	Seats (Total: 19) CCC 1115
1109	John Macintosh TuTh 9:30am - 10:45am	Seats (Total: 19) PLS 1164
1209	Joshua Weiss TuTh 11:00am - 12:15pm	Seats (Total: 19) CCC 1111
1309	Joshua Weiss TuTh 12:30pm - 1:45pm	Seats (Total: 19) CCC 1105
9001	Catherine Bayly MF 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 19) CCC 1105 ONLINE
9002	Catherine Bayly MF 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 19) CCC 1105 ONLINE

ENGL101X **Academic Writing**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSAW

Additional information: Students must complete this course with a minimum grade of C- in order to fulfill the General Education Fundamental Studies Academic Writing requirement.

An introductory course in expository writing.

Limited to students for whom English is a second language. To register for ENGL 101X, a student must first demonstrate competence in English. Proof of one of the following should be brought to advisors: 1) a minimu m score of 100 on the iBT 2) a minimum score of 7 on the IELTS or 3) successful completion of UMEI 005, Advanced English as a Foreign Language, Semi-Intensive.

2003	Laura Williams TuTh 11:00am - 12:15pm	Seats (Total: 18) TWS 3250	
2004	Benjamin Baker MWF 10:00am - 10:50am	Seats (Total: 18) TWS 3250	
2005	Benjamin Baker MWF 12:00pm - 12:50pm	Seats (Total: 18) TWS 3250	
2006	Laura Williams TuTh 2:00pm - 3:15pm	Seats (Total: 18) TWS 3250	

ENGL121 **The Power of Song: Renaissance Lyric and Its Afterlives**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, SCIS

Examines the power that song has over its audiences. Drawing on literary, performance, and sound studies, we will investigate how song takes hold of its listeners in uniquely moving ways. We will examine the special appeal of song in early modern England, including works by William Shakespeare, John Milton, and William Byrd. And we will compare the song culture of the English Renaissance to the power of song in contemporary life, from Kendrick Lamar to CocoRosie.

0101	Scott Trudell MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 24) TWS 1100 TWS 0236	 Discussion
0102	Scott Trudell MW 2:00pm - 2:50pm F 12:00pm - 12:50pm	Seats (Total: 24) TWS 1100 TWS 0205	 Discussion

0103	Scott Trudell MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 24) TWS 1100 TWS 0201	 Discussion
0104	Scott Trudell MW 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 24) TWS 1100 TWS 0236	 Discussion

ENGL125 **Why Poetry Matters**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU, SCIS

Introduction to the formal fundamentals of poetry and exploration of the role poetry plays in how we think about the human condition; what constitutes knowledge and wisdom, interior subjectivity and communal identity; and how this knowledge is to be used in confronting new challenges and the perennial questions: how to live with oneself, and as oneself; in time, and with others; here, where we reside; and elsewhere, where we imagine ourselves going.

0101	Nicole Cuffy MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 22) JMZ 0220 TWS 0201	 Discussion
0102	Nicole Cuffy MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 22) JMZ 0220 TWS 0201	 Discussion
0103	Nicole Cuffy MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 22) JMZ 0220 TWS 0205	 Discussion
0104	Nicole Cuffy MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 22) JMZ 0220 TWS 0201	 Discussion
0105	Nicole Cuffy MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 22) JMZ 0220 TWS 3132	 Discussion
0106	Nicole Cuffy MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 22) JMZ 0220 TWS 0201	 Discussion

ENGL142 **Literary Maryland**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU, DVUP, SCIS

Credit only granted for: ENGL142 or ENGL289M. Formerly: ENGL289M.

What does the literature of Maryland teach us about our state's past, present, and future? "Literary Maryland" explores this question by taking students on a tour of our state's prose, poetry, and drama from colonization to the present. In addition to reading fascinating writing and visiting interesting places, you'll learn how the Chesapeake was formed; why nobody sings the entire national anthem; and what led Baltimore to name its football team after a poem written by a Virginian.

0101	Randy Ontiveros MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 24) ESJ 1202 TWS 1106	Discussion
0102	Randy Ontiveros MW 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 24) ESJ 1202 TWS 1106	Discussion
0103	Randy Ontiveros MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 24) ESJ 1202 TWS 1106	Discussion
0104	Randy Ontiveros MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 24) ESJ 1202 TWS 1106	Discussion

ENGL146 **Seeing the Present: Graphic Storytelling in the Age of Social Media**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP, SCIS

We increasingly live in a world dominated by digital images: graphic narratives, data visualizations, tweets, GIFs, and computer animation. Students will learn how to critically analyze this digital visual rhetoric and how to become a skilled user of visual discourse. By examining a range of science fiction, graphic novels, photography, and films, we will develop a critical vocabulary for understanding the possibilities and perils of our digital image culture. We will apply this vocabulary to analyzing visual representations of contemporary political questions including: climate change, criminal justice, bio-technological transformations of the human, and the incorporation of algorithm-based platforms into everyday life.

0101	Lee Konstantinou MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 24) TWS 1100 TWS 0214	Discussion
0102	Lee Konstantinou MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 24) TWS 1100 TWS 1107	Discussion
0103	Lee Konstantinou MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 24) TWS 1100 TWS 0214	Discussion
0104	Lee Konstantinou MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 24) TWS 1100 TWS 0214	Discussion

ENGL202 **Inventing Western Literature: Renaissance to Modern**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

Wide range of texts from the Renaissance to the 21st century. Themes and literary techniques in the evolution of Western literature. Print publication, industrialization, questioning of religious, political, intellectual, and cultural authority.

0101	William Pittman MWF 11:00am - 11:50am	Seats (Total: 30) TWS 0214	

ENGL211 **English Literature: Beginnings to 1800**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

Surveys medieval and early modern literary works written in England. Readings may include Beowulf, Chaucer, Spenser, Mary Wroth, Milton; eighteenth-century satire, drama, novels.

0101	Konstantinos Pozoukidis MW 3:30pm - 4:45pm	Seats (Total: 30) KEY 0102	

ENGL212 **English Literature: 1800 to the Present**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

Surveys the major literary movements of the period, from Romantic to Victorian to Modern. Such authors as Wordsworth, Keats, Bronte, Tennyson, Browning, Yeats, Joyce, Woolf.

0101	Justin Thompson	Seats (Total: 30)
	MWF 10:00am - 10:50am	TWS 0205

ENGL222 **American Literature: 1865 to Present**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HL	General Education: DSHU

Surveys American writing from the Civil War through the Cold War. Authors such as Clemens, Frost, Hurston, Bellow.

0101	Gerard Holmes	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	TWS 1320

ENGL233 **Introduction to Asian American Literature**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HL, D	General Education: DSHU, DVUP

Cross-listed with: AAST233. Credit only granted for: ENGL233 or AAST233.

A survey of Asian American literature with an emphasis on recurrent themes and historical context.

0101	Jonathan Reyes	Seats (Total: 30)
	TuTh 9:30am - 10:45am	JMZ 0208

ENGL234 **African-American Literature and Culture**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HL, D	General Education: DSHU, DVUP

Cross-listed with: AASP298L. Credit only granted for: ENGL234 or AASP298L.

An exploration of the stories black authors tell about themselves, their communities, and the nation as informed by time and place, gender, sexuality, and class. African American perspective themes such as art, childhood, sexuality, marriage, alienation and mortality, as well as representations of slavery, Reconstruction, racial violence and the Nadir, legalized racism and segregation, black patriotism and black ex-patriots, the optimism of integration, and the prospects of a post-racial America.

Cross-listed with AASP298L. Credit granted for AASP298L or ENGL234.

0101	Chauncey Dennie	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	JMZ 2206

ENGL235 **U.S. Latinx Literature and Culture**

Credits: 3	Grading Method: Regular, Pass-Fail	CORE: HL, D	General Education: DSHU, DVUP

Cross-listed with: AMST298Q. Credit only granted for: ENGL235 or AMST298Q.

Examines the poetry, prose, and theater of Latinx communities in the United States from their origins in the Spanish colonization of North America to their ongoing development in the 21st century. Considers how authors use literary form to gain insight into human experience, including mortality, religious belief, gender and sexuality, war and peace, family, language use, scientific inquiry, cultural tradition, ecology, and labor. Also studies how Latinx literary traditions have shaped and been shaped by broader currents in American literature, as well as what connections exist between Latinx literature and social and artistic developments in other parts of the world, particularly Latin America and the Caribbean. Authors may include Alvar Nunez Cabeza de Vaca, Eulalia Perez, Juan Nepomuceno Seguin, Maria Amparo Ruiz de Burton, Jose Marti, Arthur A. Schomburg, Jesus Colon, Julia de Burgos, Cesar Chavez, Ariel Dorfman, Gloria Anzaldua, Junot Diaz, and Cristina Garcia.

Cross-listed with AMST298Q. Credit granted for ENGL235 or AMST298Q.

0101	Andrea Knowles	Seats (Total: 30)
	MWF 11:00am - 11:50am	KEY 0125

ENGL241 **What the Novel Does**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HL	General Education: DSHU

An exploration of what the novel does that cannot be done by film, by television, by cell-phone screens, by any stream of images, or by textual excerpts pulled up for a quick read. The different ways of the novel, with particular focus on the process of thinking and the developed consciousness. The novel as a machine to think with and an irreplaceable model of complex human thought. Study of how thought is presented in radically different ways in novels that cross lines of class, gender, chronology, and nationality.

0101	Annemarie Ewing	Seats (Total: 30)
	TuTh 5:00pm - 6:15pm	ASY 3215

ENGL243 **What is Poetry?**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HL	General Education: DSHU

An exploration of arguably the most complex, profound, and ubiquitous expression of human experience. Study through close reading of significant forms and conventions of Western poetic tradition. Poetry's roots in oral and folk traditions and connections to popular song forms.

0401	Radford Skudrna TuTh 3:30pm - 4:45pm	Seats (Total: 30) KEY 0102

ENGL244 **The Play's the Thing**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

Exploration of drama through a consideration of plot, narrative flow, analytical flow, staging, performance, manuscript and printing history, text and textual change over time, and interpretation. Plays will be approached as public attempts to understand what it means to be alive.

Contact department for information to register for this course.

ENGL245 **Film Form and Culture**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA | General Education: DSHU

Cross-listed with: CINE245. Credit only granted for: ENGL245, CINE245 or FILM245. Formerly: FILM245.

Introduction to film as art form and how films create meaning. Basic film terminology; fundamental principles of film form, film narrative, and film history. Examination of film technique and style over past one hundred years. Social and economic functions of film within broader institutional, economic, and cultural contexts.

Restriction: Must not have completed ENGL245 or FILM245. Also offered as: ENGL245. Credit only granted for: CMLT214, CMLT245 or FILM 245. Formerly: CMLT214."

0201	Porter Olsen TuTh 2:00pm - 3:15pm	Seats (Total: 30) TWS 0320
0301	Porter Olsen TuTh 11:00am - 12:15pm	Seats (Total: 30) TWS 0320

ENGL246 **Introduction to the Short Story**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

A survey of the genre, with a focus on significant elements, such as plot, character, description, style, and theme. Readings will be drawn from a range of cultures and communities.

0101	Peter Witte MWF 10:00am - 10:50am	Seats (Total: 30) TWS 0221

ENGL250 **Reading Women Writing**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HL, D	General Education: DSHU, DVUP

Cross-listed with: WGSS255. Credit only granted for: ENGL250, WMST255 or WGSS255. Formerly: WMST255.

Explores literary and cultural expressions by women and their receptions within a range of historical periods and genres. Topics such as what does a woman need in order to write, what role does gender play in the production, consumption, and interpretation of texts, and to what extent do women comprise a distinct literary subculture. Interpretation of texts will be guided by feminist and gender theory, ways of reading that have emerged as important to literary studies over the last four decades.

0201	Jeannette Schollaert	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	KEY 0102

ENGL255 **Literature of Science and Technology**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HL	General Education: DSHU

Examines science and technology through the lens of British and American literature, primarily between 1800 and the present. Readings from early natural and experimental philosophers of the Scientific Revolution and Enlightenment. How literary works represent the ethics of science and technology; beneficial developments of science, and also heavy toll of industrialization. Writers studied may include Francis Bacon, Mary Shelley, Charles Darwin, H.G. Wells, Albert Einstein, Aldous Huxley, Richard Feynman, Philip K. Dick, Octavia Butler, Michael Frayn, and Tom Stoppard.

0201	John Rendeiro	Seats (Total: 30)
	MWF 12:00pm - 12:50pm	TWS 1107

ENGL256 **Fantasy Literature**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	General Education: DSHU

How fantasy employs alternate forms of representation, such as the fantastical, estranging, or impossible, which other genres would not allow. Through novels, short stories, graphic novels, and film, traces fantasy's roots in mythology and folklore, then explores how modern texts build upon or challenge these origins. Examination of literary strategies texts use to represent the world through speculative modes. How to distinguish fantasy from, and relate it to, other genres such as science fiction, horror, fairly tales, and magical realism. Fantasy's investment in world-building, history, tradition, and categories of identity such as race, class, and gender. How fantasy, as a genre, form, and world-view, is well-suited to our contemporary reality.

0101	Alexandria Nunn	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	TWS 0207

ENGL262 **Introduction to the Hebrew Bible/Old Testament**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

Cross-listed with: JWST262, HEBR298B. Credit only granted for: JWST262, HEBR293B, or ENGL262.

Origins of the Hebrew Bible (Old Testament), with attention to literary formations, archaeology, and social-political settings. Explorations of major questions, including who wrote the Bible, and when; relationships of the biblical tradition to the mythology and religious structures of ancient Israel's near eastern neighbors; and dynamics of politics, religious leadership, and law.

Contact department for information to register for this course.

ENGL265 **LGBTQ+ Literatures and Media**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL, D | General Education: DSHU, DVUP

Restriction: Must not have completed LGBT265. Cross-listed with: LGBT265. Credit only granted for: ENGL265 or LGBT265.

A study of literary and cultural expressions of queer and trans identities, positionalities, and analytics through an exploration of literature, art, and media. We will examine historical and political power relations by considering the intersections of sexuality and gender with race, class, nation, and disability. Topics include the social construction and regulation of sexuality and gender, performance and performativity, intersectionality, and the relationship between aesthetic forms and queer/ trans subjectivity. Our interpretations will be informed by queer and trans theories.

0201	Emilee Durand	Seats (Total: 30)
	MWF 1:00pm - 1:50pm	TWS 0236

ENGL269B **Special Topics in Study Abroad II; Writing Workshop I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL269C **Special Topics in Study Abroad II; Writing Workshop II**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL269R **Special Topics in Study Abroad II; Writing Rome**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL269X **Special Topics in Study Abroad II; Theories of Text**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL271 **Writing Poems and Stories: An Introductory Workshop**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSSP

Introduction to theory and practice of writing fiction and poetry. Emphasis on critical reading of literary models. Exercises and workshop discussions with continual reference to modeling, drafting, and revising as necessary stages in a creative process.

0101	Katherine Hansen TuTh 11:00am - 12:15pm	Seats (Total: 15) KEY 0121
0102	Katherine Hansen TuTh 11:00am - 12:15pm *Restricted to students in the Jiminez-Porter Writers' House.*	Seats (Total: 5) KEY 0121
0201	McKenna Marsden TuTh 8:00am - 9:15am	Seats (Total: 20) KEY 0121
0301	Caroline Rothrock MW 2:00pm - 3:15pm	Seats (Total: 20) KEY 0125

ENGL272 **Writing Fiction: A Beginning Workshop**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSSP

Introduction to theory and practice of writing fiction. Emphasis on critical reading of literary models. Exercises and workshop discussions with continual reference to modeling, drafting, and revising as necessary stages in a creative process.

0101	Edward Daschle TuTh 8:00am - 9:15am	Seats (Total: 20) KEY 0120
0201	Meghan Collins TuTh 9:30am - 10:45am	Seats (Total: 20) KEY 0121
0301	Subraj Singh MW 2:00pm - 3:15pm	Seats (Total: 20) KEY 0123
0401	Anna Cronan TuTh 9:30am - 10:45am	Seats (Total: 20) KEY 0123

ENGL273 **Writing Poetry: A Beginning Workshop**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Introduction to theory and practice of writing poetry. Emphasis on critical reading of literary models. Exercises and workshop discussions with continual reference to modeling, drafting, and revising as necessary stages in a creative process.

0101	Connor Watkins TuTh 9:30am - 10:45am	Seats (Total: 20) KEY 0125
0201	Madeline Galvez MWF 11:00am - 11:50am	Seats (Total: 20) KEY 0102

ENGL275 **Scriptwriting for Theater, Film, and Television**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU, DSSP

Cross-listed with: ARHU275. Credit only granted for: ENGL275 or ARHU275.

Introduction to the theory and practice of scriptwriting with an opportunity to read, view, evaluate, write, and revise texts meant to be performed. Students will practice writing for the stage, film, and television and also examine selected scripts, performances, and film and television clips as models for their own creative work. Students will complete frequent writing exercises, participate in workshops, and learn to apply scholarship to the analysis and critique of scripts.

0101	Liam Daley MWF 10:00am - 10:50am	Seats (Total: 15) EDU 3315
0102	Liam Daley MWF 10:00am - 10:50am *Restricted to students in the Jimenez-Porter Writers' House.*	Seats (Total: 5) EDU 3315

ENGL280 **The English Language**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO | General Education: DSHU

Introduction to the structure of English and its historical development, with a focus on techniques of linguistic analysis. Major topics include the sound systems of English and its patterns of word formation and sentence structure, and the ways these have changed over time and vary around the world.

0101	Michael Israel MW 3:30pm - 4:45pm	Seats (Total: 30) TWS 0205

ENGL290 **Introduction to Digital Studies**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DSSP

Introductory course in digital studies. Surveys contemporary humanities work in digital technologies, including the web and social media and their historical antecedents. Explores design and making as analytical tools alongside reading and writing. Situates digital media within power and politics and develops critical awareness of how media shape society and ethics. Interdisciplinary approaches to creativity, analysis, and technology. While the course will include hands-on practice, no prior experience of programming, designing, or making required other than a willingness to experiment and play.

0101	Cameron Mozafari MWF 12:00pm - 12:50pm	Seats (Total: 20) TWS 1321

ENGL291 **Writing, Revising, Persuading**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU, DSSP

Prerequisite: Must have satisfied Fundamental Studies Academic Writing requirement.

Intermediate-level, writing-intensive course for students who have successfully satisfied the Fundamental Studies Academic Writing requirement but wish to hone skills in analyzing and producing rhetorically attuned, well-styled prose. Deeper study of rhetorical theory and its application to a wide variety of arguments and situations. Additional writing practice, techniques of revision, study of effect of stylistic choices. Topics may include argumentation theory, visual rhetoric, stylistic theory, and writing theory.

Contact department for information to register for this course.

ENGL293 **Writing in the Wireless World**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HO	General Education: DSHU, DSSP

Recommended: ENGL101.

A hands-on exploration of writing at the intersection of technology and rhetoric. Students will learn to read, analyze, and compose the kinds of multimodal documents--documents combining text, image, and sound--that constitute communication in our digital world.

0101	Brittany Starr	Seats (Total: 22)
	TuTh 2:00pm - 3:15pm	TWS 0205

ENGL294 **Persuasion and Cleverness in Social Media**

Credits: 3	Grading Method: Regular, Pass-Fail	General Education: DSHU, DSSP

Prerequisite: Must have satisfied Fundamental Studies Academic Writing requirement.

Exploration of various persuasive media encountered in daily life through the lens of rhetorical and critical theories. Principles of rhetoric and analysis of how persuasion functions across media. Invention of effective multimedia works appropriate to purpose, audience, and context. Concepts from cultural studies used to develop critical awareness about power and ideology and how they influence the way people produce and understand messages. By integration of technology, rhetoric, and cultural studies, students become more critically-rhetorically informed thinkers, authors, and audiences of arguments and culture in the digital age. Writing intensive course. No prior multimedia experience is expected.

0101	Erin Green	Seats (Total: 20)
	MWF 12:00pm - 12:50pm	KEY 0125

ENGL297 **Introduction to Professional Writing**

Credits: 3	Grading Method: Regular, Pass-Fail	General Education: DSSP

Prerequisite: ENGL101.

Introduction to the rhetorical principles and professional practices of professional writing, particularly the research, writing, communication, analytical, and technological skills needed for the Professional Writing minor. How culture and technology relate to the work of professional writing; design principles and rhetorical moves; digital tools, research skills, and writing strategies of professional writers. Develops skills needed to publish a writing portfolio that showcases students' professional writing competencies and projects your professional writer identities.

0101	Blake Wilder MW 2:00pm - 3:15pm	Seats (Total: 22) TWS 0224
0201	Marina Ellis TuTh 2:00pm - 3:15pm	Seats (Total: 22) TWS 0230

ENGL301 **This is English: Fields and Methods**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Must be in English Language and Literature program; or must be in Secondary Educ: English Language Arts program.

"English" means a lot of things. Are you looking for literature, or linguistics? For writing--creative, critical, or professional? For theater, or debate? For film, or even videogames? This gateway course for the English major introduces you to all of these areas and more, as well as to our discipline's unique resources for studying and enjoying them. The English discipline includes three main interpretive fields: Literary and Cultural Studies; Language, Writing, and Rhetoric; and Media Studies. This course brings together the fundamental concepts and methods for reading, viewing, and researching practiced in these fields, launching you into English studies and and helping you to choose the major track that is right for you.

0201	Blake Wilder MWF 12:00pm - 12:50pm	Seats (Total: 15) TWS 3132
0401	Kim Coles TuTh 11:00am - 12:15pm	Seats (Total: 15) TWS 3132
0501	John Macintosh TuTh 2:00pm - 3:15pm	Seats (Total: 15) TWS 3132
0801	Cecilia Shelton MW 2:00pm - 3:15pm	Seats (Total: 15) TWS 3132

ENGL302 **Medieval Literature in Translation**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Surveys major works of English and continental Middle Ages. Readings may include romance, lyric and drama, Germanic epic, works of Dante, Chretien de Troyes, Jean de Meun, Christine de Pisan, Malory, English and continental mystics.

0101	Thomas Moser	Seats (Total: 25)
	TuTh 9:30am - 10:45am	TWS 1106

ENGL312 Romantic to Modern British Literature

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Detailed study of selected major texts from the 19th and 20th centuries. Transitions from Romanticism to Victorian age to Modernism. Historical, social, literary contexts. Issues such as rise of democracy; industrial revolution; the "woman question"; revolutions in literary form. Authors might include Wordsworth, Austen, Dickens, Arnold, T.S. Eliot, and Woolf.

0101	Orrin Wang	Seats (Total: 25)
	MW 2:00pm - 3:15pm	TWS 0205

ENGL313 American Literature

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

A detailed study of selected major texts of American literature from the 17th century to the 20th century. Issues such as race, gender, and regionalism. Authors such as Franklin, Hawthorne, Dickinson, Hemingway, and Morrison.

0101	Robert Levine	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	TWS 0236

ENGL329A Special Topics in Film Studies; Cinema of Liberation

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Studies in various periods and genres of film.

Cross-listed with CMLT398C. Credit granted for ENGL329A or CMLT398C. Repeatable to 9 credits if content differs. Studies in various periods and genres of film.

0201	Eugene Robinson	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

ENGL329M **Special Topics in Film Studies; Ecomedia**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Studies in various periods and genres of film.

Cross-listed with CINE319G. Credit only granted for ENGL329M or CINE319G. Prerequisite: ENGL245, FILM245, SLLC283, CINE245 or FILM283 or CINE283; or permission of instructor.

0101	Oliver Gaycken	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	ESJ B0322

ENGL329Y **Special Topics in Film Studies; A Cinema of Migration as Message**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Studies in various periods and genres of film.

0201	Eugene Robinson	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

ENGL344 **Nineteenth-Century Fiction**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Major British, American, and other fiction writers of the nineteenth century studied in the context of the broad global, intellectual, and artistic interests of the century.

0101	Jason Rudy	Seats (Total: 25)
	MW 3:30pm - 4:45pm	TWS 0201

ENGL349J **Asian American Literatures; New World Arrivals: Literature of Asian American Migration and Diaspora**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D

Study of selected writers, particular themes, or genres in Asian American literatures.

Cross-listed with AAST398J. Credit granted for AAST398J or ENGL349J.

0101	Edlie Wong TuTh 2:00pm - 3:15pm	Seats (Total: 25) TWS 0236

ENGL352 **Intermediate Fiction Workshop**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of A- in ENGL271 or ENGL272; or permission of ARHU-English department.

A class in the making of fiction. Intensive discussion of students' own fiction. Readings include both fiction and essays about fiction by practicing writers. Writing short critical papers, responding to works of fiction, and the fiction of colleagues, in-class writing exercises, intensive reading, and thinking about literature, in equal parts, and attendance at readings.

0101	Rion Scott Th 3:30pm - 6:00pm	Seats (Total: 15) TWS 3252
0301	Nicole Cuffy Tu 3:30pm - 6:00pm	Seats (Total: 15) TWS 3134

ENGL353 **Intermediate Poetry Workshop**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of A- in ENGL271 or ENGL273; or permission of ARHU-English department.

A class in the making of poetry. Intensive discussion of students' own poems. Readings in both poetry and essays about poetry by practicing poets. Writing short critical prose pieces, responding critically to colleagues' poems, in-class and outside writing exercises, memorization, and attendance at poetry readings.

0101	Amanda Allen Th 3:30pm - 6:00pm	Seats (Total: 15) TWS 3250

ENGL354 **Intermediate Scriptwriting for Theater, Film, and Television**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: 1 course with a minimum grade of A- from (ENGL275, ARHU375, THET340).

Demystifies the art of dramatic writing. Students will come to understand that a play or screenplay is never a lecture, and that we write scripts to find out something about ourselves and the subjects we tackle. Students will analyze plays and screenplays, as well as workshop each others' scripts, to help them produce their own successful plays and screenplays written for the stage, screen, or box.

0101	Michael Olmert	Seats (Total: 15)
	Th 3:30pm - 6:00pm	TWS 0205

ENGL361 **Recovering Oral Histories**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU, DSSP

Prerequisite: Students must have completed one course in English, Latin American Studies, or Education.

Service-learning course that gives students an opportunity to develop writing, interviewing, and communication skills as they contribute to the work of a community organization. In the classroom, students will reflect on the process and do background research to understand the particular context of the organization's work. In the field, students will interview (or have informal discussions with) young people helped by the organization in order to construct a narrative about their lives, their perceptions of themselves, and their experiences.

Prerequisite: Must have completed at least one course in English or Latin American Studies. Credit only granted for: ENGL261 or ENGL361. Formerly: ENGL261/ENGL361

0201	Sharada Balachandran Orihuela	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	TWS 0214

ENGL362 **Caribbean Literature in English**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit , D | General Education: DSHU, DVUP

Cross-listed with: LASC348E. Credit only granted for: ENGL362 or LASC348E.

Political and literary traditions that intersect in the fiction, poetry, and drama written in English by Caribbean writers, primarily during the 20th century.

Cross-listed with LASC348E. Credit granted for ENGL362 or LASC348E.

Contact department for information to register for this course.

ENGL369G **Special Topics in Study Abroad III; Adapting Literature to the Screen**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369H **Special Topics in Study Abroad III; London Stage**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369I **Special Topics in Study Abroad III; Images of Italy in the U.K. and U.S.A.**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369L **Special Topics in Study Abroad III; Angloamerican Travelers in Spain**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369Q **Special Topics in Study Abroad III; Literature of the Shoah**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369X **Special Topics in Study Abroad III; Literature in Liguria**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369Y **Special Topics in Study Abroad III; Literary Editing and Publishing**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369Z **Special Topics in Study Abroad III; The London Stage**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL370 **Junior Honors Conference**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Candidacy for honors in English.

Preparation for writing the senior honors project.

0101	Julius Fleming	Seats (Total: 20)
	Th 6:30pm - 8:00pm	TWS 3132

ENGL375 **J.R.R. Tolkien: Middle-earth and Beyond**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

An in-depth look at major themes and ideas spanning Tolkien's well-known and lesser-known works across a variety of genres and styles. We will study "The Hobbit" and "The Lord of the Rings" in connection with Tolkien's back-story mythology expressed in "The Silmarillion." We will also consider film adaptations and other popular fantasy influenced by Tolkien. And we will explore lesser-known works such as "Farmer Giles of Ham," and Tolkien's essays on fairy stories and on "Beowulf.

0101	Vessela Valiavitcharska	Seats (Total: 25)
	MWF 1:00pm - 1:50pm	TWS 0205

ENGL378G **Special Topics in English; Science and Fiction: From Milton to the Moon Landing**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Offers sustained attention to notable current themes and approaches in English studies. Topics vary by section and semester.

0101	David Simon	Seats (Total: 25)
	MW 3:30pm - 4:45pm	TWS 0236

ENGL378W **Special Topics in English; Deep Time: Memory, Media, and Ecological Imagination in the Americas**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Offers sustained attention to notable current themes and approaches in English studies. Topics vary by section and semester.

0101	Marisa Parham	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	TWS 0205

ENGL379R **Special Topics in Literature; The Jazz Paradigm**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with CMLT398D. Credit granted for CMLT398D or ENGL379R.

0201	Eugene Robinson	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

ENGL383 **Language in Its Social Contexts**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Exploration of the social and political aspects of language use, including interactional behavior, the structure of conversation, persuasive uses of language, social dialects, language use within speech communities, and language and identity. We will examine and compare analytical approaches to pragmatics and discourse analysis.

0101	Linda Coleman	Seats (Total: 25)
	TuTh 9:30am - 10:45am	TWS 0205

ENGL384 **Concepts of Grammar**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Introduction to the basic units of grammatical description; motivation for and nature of constituent structure and syntactic categories; fundamental grammatical concepts employed in the teaching and learning of languages.

0101	Michael Israel	Seats (Total: 25)
	MW 5:00pm - 6:15pm	TWS 0236

ENGL388D **Writing, Research, and Media Internships; Dickinson Electronic Archives**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail

Field work in English studies.

Prerequisite: permission of the department. Contact Professor Martha Nell Smith, mnsmith@umd.edu

0101	Martha Nell Smith	Seats (Total: 5)
	Contact instructor or department for details.	

ENGL388M **Maryland General Assembly Writing Internship**

(Perm req)

Credits: 6 Grading Method: Regular, Pass-Fail General Education: DSSP

Prerequisite: ENGL381 or HONR368A. Restriction: Minimum cumulative GPA of 3.0; and must have earned a minimum of 60 credits; and must be admitted to the MGA program. Cross-listed with: HONR379W. Credit only granted for: ENGL388M or HONR379W.

Experiential learning at the Maryland General Assembly (early January through early April). Interns participate in standard office tasks, research legislative issues, and draft legislative texts such as constituent letters, notes on bills, newsletters, policy memos, and testimony. Specific assignments vary according to the host legislator's needs and the intern's schedule.

Cross-listed with HONR379W. Credit granted for ENGL388M or HONR379W.

Click here for more information.

0101	Thomas Lowderbaugh	Seats (Total: 15)
	Contact instructor or department for details.	
	Students can only register for six credits.	

ENGL388P **English Careers Internship**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail General Education: DSSP

Prerequisite: Permission of ARHU-English department. Repeatable to 12 credits if content differs. Additional information: Each enrolled credit equals 45 hours of on-site internship work.

Students receive credit for an internship of their choice that focuses at least half of its work on core English skills such as writing, editing, and research. Students secure their own internship placements. Course assignments include, for instance, an activity log, reflection papers, a supervisor evaluation, and a final portfolio of work.

Prerequisite: permission of the department. Contact english@umd.edu.

0101	Karen Lewis	Seats (Total: 15)
	Contact instructor or department for details.	

ENGL388T **Writing, Research, and Media Internships; Digital Humanities Research Assistantship**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Field work in English studies.

Cross-listed with ENGL388T. Credit only granted for MITH388 or ENGL388T. Prerequisite: permission of department. Repeatable to 9 credits.

0101	Purdom Lindblad	Seats (Total: 10)
	Contact instructor or department for details.	

ENGL388V **Undergraduate Teaching Assistants in English**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail General Education: DSSP

Prerequisite: Permission of the ARHU-English department. Repeatable to 12 credits. Additional information: Students should consult with the UTA Coordinator to determine the number of enrollment credits.

A weekly teaching practicum and concurrent internship as an undergraduate teaching assistant in an English course. Students will explore the theories and best practices of teaching and learning in the various fields of the English discipline, particularly writing and literary studies. The emphasis is on creating inclusive classrooms and working with diverse learners and is grounded in theories of critical pedagogy. Students will apply principles of learning theory to develop and facilitate learner-centered lessons and discussions. They will also study composition pedagogy in preparation for responding to student writing in the course for which they are an assistant.

Prerequisite: permission of department. Repeatable to 12 credits. Contact Lyra Hilliard, lyrahill@umd.edu. Students taking ENGL388V for the first time should register for either section 0101 or 0401 for 4 credits. When taking the course again in subsequent semesters, students should register for 2001 or 3001 for 3 credits."

0101	Sarah Dammeyer	Seats (Total: 20)
	W 3:30pm - 5:00pm	TWS 1321

0401	Lyra Hilliard Tu 3:30pm - 5:00pm	Seats (Total: 20) ASY 3217
2001	Sarah Dammeyer Contact instructor or department for details.	Seats (Total: 10)
3001	Lyra Hilliard Contact instructor or department for details.	Seats (Total: 10)

ENGL388W **Writing Center Internship**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail General Education: DSSP

Prerequisite: Permission of the Writing Center (1205 Tawes Hall). Repeatable to 12 credits. Cross-listed with: SPAN388W. Credit only granted for: ENGL388W or SPAN388W.

Examines face-to-face and online writing center theory and practice through readings, exercises, and supervised tutoring. Students investigate the writing process and help other writers to negotiate it.

Prerequisite: permission of department. Repeatable to 12 credits. To apply, go to http://www.english.umd.edu/academics/writingcenter/ internship. Cross-listed with SPAN388W. Credit only greanted for ENGL388W or SPAN388W. Students taking ENGL388W for the first time should register for section 0101 for 4 credits. When taking the course a gain in subsequent semesters, students should register for 2001.

0101	Thomas Earles M 3:30pm - 6:00pm *Students should register for four credits.*	Seats (Total: 20) TWS 3252
2001	Thomas Earles Contact instructor or department for details.	Seats (Total: 4)

ENGL390 **Science Writing**

Credits: 3 Grading Method: Regular General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits; and junior standing or higher. Credit only granted for: ENGL390 or ENGL393S. Formerly: ENGL393S.

Specifically designed for students interested in further study in the physical and biological sciences. Exposes students to the conventions of scientific prose in the genres of research articles and proposals. Students also learn to accommodate scientific information to general audiences.

Click here for more course information.

0201	Marybeth Shea MWF 10:00am - 10:50am	Seats (Total: 19) TWS 0224
0301	Katherine Oneill MWF 11:00am - 11:50am	Seats (Total: 19) ONLINE
0401	Katherine Oneill MWF 12:00pm - 12:50pm	Seats (Total: 19) ONLINE
0501	Katherine Oneill MWF 1:00pm - 1:50pm	Seats (Total: 19) ONLINE
1001	Robin Allen-Klein TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 0221
1101	Robin Allen-Klein TuTh 9:30am - 10:45am	Seats (Total: 19) ASY 1213
1701	Richard Reynnells Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 1100
1801	Richard Reynnells W 6:30pm - 9:10pm	Seats (Total: 19) TWS 1107
9001	Kate Wilson Class time/details on ELMs	Seats (Total: 19) ONLINE
9002	Sarah Dammeyer Class time/details on ELMs	Seats (Total: 19) ONLINE

ENGL390H **Science Writing**

Credits: 3 Grading Method: Regular General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits; and junior standing or higher. Credit only granted for: ENGL390 or ENGL393S. Formerly: ENGL393S.

Specifically designed for students interested in further study in the physical and biological sciences. Exposes students to the conventions of scientific prose in the genres of research articles and proposals. Students also learn to accommodate scientific information to general audiences.

Restricted to students in the University or departmental Honors program.

0101	Marybeth Shea MWF 9:00am - 9:50am	Seats (Total: 19) TWS 0224
0301	Marybeth Shea MWF 11:00am - 11:50am	Seats (Total: 19) TWS 0224

ENGL391 **Advanced Composition**

Credits: 3 Grading Method: Regular General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

An advanced composition course which emphasizes constructing written arguments accommodated to real audiences.

Click here for more information on professional writing courses.

0001	Benjamin Baker MWF 8:00am - 8:50am	Seats (Total: 19) TWS 0205
0101	Benjamin Baker MWF 9:00am - 9:50am	Seats (Total: 19) TWS 0201
0301	Robert Lucci MWF 11:00am - 11:50am	Seats (Total: 19) TWS 0232
0401	Mark Forrester MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 0207
0402	Shannon Zellars Strohl MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 0232
0701	Robert Lucci MW 3:30pm - 4:45pm	Seats (Total: 19) TWS 0234
1101	Kathleen Orr TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0207
1202	Peter Grybauskas TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 0234

1401	Peter Grybauskas TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 0234
1701	Mark Fitzgerald Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 0236
1901	Mark Fitzgerald Th 6:30pm - 9:10pm	Seats (Total: 19) TWS 0236
6101	Catherine Bayly MF 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 19) ATL 1114 ONLINE
6102	Catherine Bayly MF 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 19) ATL 1434 ONLINE
6103	Christopher Crane MW 2:00pm - 2:50pm Class time/details on ELMs	Seats (Total: 19) TWS 1105 ONLINE
9001	Kate Wilson Class time/details on ELMs	Seats (Total: 19) ONLINE
9002	Kate Wilson Class time/details on ELMs	Seats (Total: 19) ONLINE
9003	Daune O'Brien Class time/details on ELMs	Seats (Total: 19) ONLINE
9004	Andrew Delfino Class time/details on ELMs	Seats (Total: 19) ONLINE
9005	Mark Fitzgerald Class time/details on ELMs	Seats (Total: 19) ONLINE
9006	Mark Fitzgerald Class time/details on ELMs	Seats (Total: 19) ONLINE

ENGL391H Advanced Composition

Credits: 3 Grading Method: Regular General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

An advanced composition course which emphasizes constructing written arguments accommodated to real audiences.

Restricted to students in the University or departmental Honors program.

Click here for more information on professional writing courses.

0201	Mark Forrester MWF 10:00am - 10:50am	Seats (Total: 19) TWS 0207

ENGL392 Legal Writing

Credits: 3 Grading Method: Regular General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Conventions of legal writing and research. Students learn how to read and write about cases, statutes, or other legislation; how to apply legal principles to fact scenarios; and how to present a written analysis for readers in the legal profession. Assignments may include the law-school application essay, case briefs, legal memos, and client letters.

Click here for more information on professional writing courses.

1101	John Kim TuTh 9:30am - 10:45am	Seats (Total: 19) EDU 2101
1201	John Kim TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 0221
1301	John Kim TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 0234
1601	Michael Winett M 6:30pm - 9:10pm	Seats (Total: 19) TWS 0232
1701	Michael Winett Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 0232
1801	Michael Winett W 6:30pm - 9:10pm	Seats (Total: 19) TWS 0232

ENGL393 **Technical Writing**

Credits: 3 Grading Method: Regular General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Focuses on the writing of technical papers and reports.

Click here for more information on professional writing courses.

0001	Patrick Nelson MWF 8:00am - 8:50am	Seats (Total: 19) TWS 0207
0101	Elliot Berger MWF 9:00am - 9:50am	Seats (Total: 19) TWS 0207
0201	Dennis Winston MWF 10:00am - 10:50am	Seats (Total: 19) TWS 0234
0202	Elliot Berger MWF 10:00am - 10:50am	Seats (Total: 19) TWS 1105
0301	Dennis Winston MWF 11:00am - 11:50am	Seats (Total: 19) ARC 1101
0302	Joan Mooney MWF 11:00am - 11:50am	Seats (Total: 19) ONLINE
0401	Alexandra Calloway MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 0234
0402	Dennis Winston MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 0221
0501	Joan Mooney MWF 1:00pm - 1:50pm	Seats (Total: 19) ONLINE
0502	Alexandra Calloway MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 1105
0601	Alexandra Calloway MWF 2:00pm - 2:50pm	Seats (Total: 19) TWS 3136

0701	Shannon Zellars Strohl MW 3:30pm - 4:45pm	Seats (Total: 19) ONLINE
0801	Robert Lucci MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 0207
1001	Elizabeth McClure TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 0207
1101	Elizabeth McClure TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0221
1102	Alysia Sawchyn TuTh 9:30am - 10:45am	Seats (Total: 19) KNI 1103
1201	Kisa Lape TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 0207
1202	Sarah Dammeyer TuTh 11:00am - 12:15pm	Seats (Total: 19) KNI 1103
1401	Sarah Dammeyer TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 0207
1501	Sarah Dammeyer Tu 3:30pm - 4:45pm Th 3:30pm - 4:45pm	Seats (Total: 19) TWS 1105 TWS 1107
1505	Elizabeth McClure TuTh 5:00pm - 6:15pm	Seats (Total: 19) ONLINE
1601	Kelly Cresap M 6:30pm - 9:10pm	Seats (Total: 19) TWS 1106
1602	Mrim Boutla M 6:30pm - 9:10pm	Seats (Total: 19) TWS 0234
1701	Sarah Goodson Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 0214

1801	Kelly Cresap W 6:30pm - 9:10pm	Seats (Total: 19) TWS 1105
1802	Patrick Nelson W 6:30pm - 9:10pm	Seats (Total: 19) TWS 0205
1901	Daune O'Brien Th 6:30pm - 9:10pm	Seats (Total: 19) ONLINE
1902	Elizabeth Parr Th 6:30pm - 9:10pm	Seats (Total: 19) TWS 0201
9001	Phillip Moses Class time/details on ELMs	Seats (Total: 19) ONLINE
9002	Ann Mason Class time/details on ELMs	Seats (Total: 19) ONLINE
9003	Daniel Saalfeld Class time/details on ELMs	Seats (Total: 19) ONLINE
9004	Daniel Saalfeld Class time/details on ELMs	Seats (Total: 19) ONLINE
9005	Daniel Saalfeld Class time/details on ELMs	Seats (Total: 19) ONLINE
9007	Daniel Saalfeld Class time/details on ELMs	Seats (Total: 19) ONLINE
9008	David Miles Class time/details on ELMs	Seats (Total: 19) ONLINE
9009	David Miles Class time/details on ELMs	Seats (Total: 19) ONLINE
9010	Ann Mason Class time/details on ELMs	Seats (Total: 19) ONLINE
9011	Phillip Moses Class time/details on ELMs	Seats (Total: 19) ONLINE

9012	Danuta Hinc Class time/details on ELMs	Seats (Total: 19) ONLINE
9013	Danuta Hinc Class time/details on ELMs	Seats (Total: 19) ONLINE
9014	Ann Mason Class time/details on ELMs	Seats (Total: 19) ONLINE
9015	Ann Mason Class time/details on ELMs	Seats (Total: 19) ONLINE
9016	Michelle Von Euw Class time/details on ELMs	Seats (Total: 19) ONLINE
9017	Michelle Von Euw Class time/details on ELMs	Seats (Total: 19) ONLINE
9018	Michelle Von Euw Class time/details on ELMs	Seats (Total: 19) ONLINE
9019	Michelle Von Euw Class time/details on ELMs	Seats (Total: 19) ONLINE

ENGL393H **Technical Writing**

Credits: 3 Grading Method: Regular General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Focuses on the writing of technical papers and reports.

Restricted to students in the University or departmental Honors proram.

Click here for more information on professional writing courses.

6102	Christopher Crane MW 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 19) TWS 1106 ONLINE

ENGL393Q **Technical Writing**

Credits: 3 Grading Method: Regular General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Focuses on the writing of technical papers and reports.

3001	Alexandra Calloway F 9:00am - 11:40am	Seats (Total: 19) TWS 3252
	The writing of technical papers and reports with additional service learning hours required to be completed as part of the course.	

ENGL393X **Technical Writing**

(Perm req)

Credits: 3 Grading Method: Regular General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Focuses on the writing of technical papers and reports.

Click here for more information on professional writing courses.

1401	Carina Shi TuTh 2:00pm - 3:15pm	Seats (Total: 15) TWS 0223
	Restricted to students for whom English is a second language. For permission contact Grace Crussiah gjc@umd.edu.	

ENGL394 **Business Writing**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Intensive practice in the forms of written communication common in the business world: letters, memos, short reports, and proposals. Focus on the principles of rhetoric and effective style.

Click here for more information on professional writing courses.

0101	Erica Cochran MWF 9:00am - 9:50am	Seats (Total: 19) TWS 1105
0202	Eric Bond MWF 10:00am - 10:50am	Seats (Total: 19) TWS 3136

0302	Eric Bond MWF 11:00am - 11:50am	Seats (Total: 19) TWS 0230
0303	Erica Cochran MWF 11:00am - 11:50am	Seats (Total: 19) JMZ 2206
0401	Eric Bond MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 0230
0402	Elliot Berger MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 0224
0501	Erica Cochran MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 0224
0502	Eve Ettinger MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 0230
0601	Anna Szczepaniec-Bialas MW 2:00pm - 3:15pm	Seats (Total: 19) ONLINE
0702	Anna Szczepaniec-Bialas MW 3:30pm - 4:45pm	Seats (Total: 19) ONLINE
0801	Anna Szczepaniec-Bialas MW 5:00pm - 6:15pm	Seats (Total: 19) ONLINE
0802	Erica Cochran MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 1106
1102	Carina Shi TuTh 9:30am - 10:45am	Seats (Total: 19) ASY 3217
1103	Tom Hatcher TuTh 9:30am - 10:45am	Seats (Total: 19) ARC 1101
1201	Tom Hatcher TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 0224
1202	Carina Shi TuTh 11:00am - 12:15pm	Seats (Total: 19) ASY 3207

1203	Brandee Pettus TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 1321
1301	Tom Hatcher TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 3250
1302	Adam Lloyd TuTh 12:30pm - 1:45pm	Seats (Total: 19) ONLINE
1401	Thomas Lowderbaugh TuTh 2:00pm - 3:15pm	Seats (Total: 19) ONLINE
1402	Adam Lloyd TuTh 2:00pm - 3:15pm	Seats (Total: 19) ONLINE
1502	Robert Harris TuTh 3:30pm - 4:45pm	Seats (Total: 19) TWS 0234
1506	Robert Harris TuTh 5:00pm - 6:15pm	Seats (Total: 19) TWS 0234
1601	Daune O'Brien M 6:30pm - 9:10pm	Seats (Total: 19) ONLINE
1801	Jonathan Rick W 6:30pm - 9:10pm	Seats (Total: 19) TWS 0221
1802	Eve Ettinger W 6:30pm - 9:10pm	Seats (Total: 19) TWS 0207
9001	Pamela Orel Class time/details on ELMs	Seats (Total: 19) ONLINE
9002	Pamela Orel Class time/details on ELMs	Seats (Total: 19) ONLINE
9003	Pamela Orel Class time/details on ELMs	Seats (Total: 19) ONLINE
9004	Pamela Orel Class time/details on ELMs	Seats (Total: 19) ONLINE

9005	Karen Angeline Class time/details on ELMs	Seats (Total: 19) ONLINE
9006	Clare Parsons Class time/details on ELMs	Seats (Total: 19) ONLINE
9007	Clare Parsons Class time/details on ELMs	Seats (Total: 19) ONLINE
9008	Clare Parsons Class time/details on ELMs	Seats (Total: 19) ONLINE
9009	Karen Angeline Class time/details on ELMs	Seats (Total: 19) ONLINE
9010	Karen Angeline Class time/details on ELMs	Seats (Total: 19) ONLINE
9011	Karen Angeline Class time/details on ELMs	Seats (Total: 19) ONLINE
9012	Daune O'Brien Class time/details on ELMs	Seats (Total: 19) ONLINE
9013	Daune O'Brien Class time/details on ELMs	Seats (Total: 19) ONLINE
ESG1	David Miles Class time/details on ELMs *Restricted to students in the BSIS @ USG Program.*	Seats (Total: 19) ONLINE
ESG2	David Miles TuTh 12:30pm - 1:45pm *Restricted to COMM students at Shady Grove.*	Seats (Total: 19) ONLINE
ESG4	Carol Cron MW 5:00pm - 6:15pm *Restricted to COMM majors at Shady Grove.*	Seats (Total: 19) BLD3 3240

SG91	Holly Smith TuTh 12:30pm - 1:45pm	Seats (Total: 19) Location: TBA
	Restricted to BMGT-Shady Grove Juniors. Other students may request enrollment on a spac e available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	
SG92	Holly Smith TuTh 2:00pm - 3:15pm	Seats (Total: 19) Location: TBA
	Restricted to BMGT-Shady Grove Juniors. Other students may request enrollment on a spac e available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

ENGL395 **Writing for Health Professions**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Focus on accommodating health-related technical material and empirical studies to lay audiences, and helping writers to achieve stylistic flexibility and correctness.

Click here for more information on professional writing courses.

0101	Nasim DarouieHaghighi MWF 9:00am - 9:50am	Seats (Total: 19) ONLINE
0201	Nasim DarouieHaghighi MWF 10:00am - 10:50am	Seats (Total: 19) ONLINE
0202	Zachary Frank MWF 10:00am - 10:50am	Seats (Total: 19) TWS 0230
0301	Zachary Frank MWF 11:00am - 11:50am	Seats (Total: 19) TWS 0223
0401	Zachary Frank MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 0223
0501	Michael Schmidt MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 0223

0601	Michael Schmidt MW 2:00pm - 3:15pm	Seats (Total: 19) TWS 0207
0701	Michael Schmidt MW 3:30pm - 4:45pm	Seats (Total: 19) TWS 0223
0801	Michael Schmidt MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 0214
1002	Michelle Moncrieffe TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 0201
1101	Justin Lohr TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0223
1201	Justin Lohr TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 0223
1301	Kisa Lape TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 0223
1302	Michelle Moncrieffe TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 3252
1401	Kisa Lape TuTh 2:00pm - 3:15pm	Seats (Total: 19) ASY 3215
1501	Justin Lohr TuTh 3:30pm - 4:45pm	Seats (Total: 19) TWS 0230
1505	Elizabeth Marshall TuTh 5:00pm - 6:15pm	Seats (Total: 19) TWS 0230
1601	Aysha Jawed M 6:30pm - 9:10pm	Seats (Total: 19) TWS 0223
1701	Elizabeth Marshall Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 1105
1901	Aysha Jawed Th 6:30pm - 9:10pm	Seats (Total: 19) TWS 0224

ESG1	Joseph Wappel TuTh 2:00pm - 3:15pm	Seats (Total: 19) ONLINE
	Restricted to Shady Grove students in the Public Health Science major.	
ESG2	Joseph Wappel TuTh 11:00am - 12:15pm	Seats (Total: 19) ONLINE
	Restricted to Shady Grove students in the Public Health Science major.	
ESG4	Joseph Wappel TuTh 9:30am - 10:45am	Seats (Total: 19) ONLINE
	Registration is restricted to Biological Sciences - Shady Grove majors.	

ENGL398A **Writing for the Arts**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Examines the situations and genres in which working professionals (practitioners, advocates, administrators, and educators) write about art, culture, and artists. The course covers the complex process that writers need to learn, including how to accommodate information to specific audiences, how to use stylistic and visual devices to make information more accessible, and how to edit their own work as well as that of their peers. Assignments parallel the writing demands that students will face in the workplace, including analyzing and composing artist statements, an arts manifesto, art education guides, press releases about artists and their work, critical reviews of exhibits and performances, and proposals to funding agencies and foundations.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement.

Click here for more information on professional writing courses.

1001	Caroline Wilkins TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 1107
1101	Caroline Wilkins TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0234
1201	Emily Flamm TuTh 11:00am - 12:15pm	Seats (Total: 19) ARC 1127

1601	Peter Witte M 6:30pm - 9:10pm	Seats (Total: 19) TWS 0201
1801	Peter Witte W 6:30pm - 9:10pm	Seats (Total: 19) TWS 0201

ENGL398B **Writing for Social Entrepreneurship**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Designed for students who want to develop the skills needed to start a successful social venture--a start-up business with a social mission or a new nonprofit program. The course centers on a major writing project such as a business plan, a website design plan, a fundraising proposal, or a concept paper for a new nonprofit organization. Students produce other communication projects that social entrepreneurs use to develop their businesses and nonprofits, such as presentations or pitches to prospective investors/donors, marketing materials, and a job announcement. Students will learn from local social entrepreneurs who share their experiences of using writing to succeed in the field.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This c ourse satisfies the professional writing requirement.

Click here for more course information.

0601	Eric Thiel MW 2:00pm - 3:15pm	Seats (Total: 19) TWS 0234
0701	Eric Thiel MW 3:30pm - 4:45pm	Seats (Total: 19) TWS 0207
0801	Eric Thiel MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 0221
1401	Robert Harris TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 0232
1702	Mrim Boutla Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 0234
1901	Roxanne Clements Th 6:30pm - 9:10pm	Seats (Total: 19) TWS 0234

SG92	Gerard Holmes TuTh 2:00pm - 3:15pm	Seats (Total: 19) ONLINE
	Restricted to all BMGT majors in Shady Grove. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

ENGL398C **Writing Case Studies and Investigative Reports**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Designed for students interested in becoming police investigators, educators, case workers, insurance adjusters, nurses, or program evaluators, or in entering branches of the social sciences that investigate cases and value reports based on accurate descriptions and compelling narratives. Such reports must be factual and yet useful to decision makers, unbiased and yet focused. Students study genres and language skills from careful summarizing to convincing storytelling.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement.

Click here for more course information.

0801	Andrew Howard MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 0234
0901	Andrew Howard MW 6:30pm - 7:45pm	Seats (Total: 19) TWS 0214
1002	Kathleen Orr TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 1105
1101	Kelly Hebron TuTh 9:30am - 10:45am	Seats (Total: 19) JMZ 2122
1201	Kathleen Orr TuTh 11:00am - 12:15pm	Seats (Total: 19) KEY 0102
ESG1	Joseph Wappel TuTh 12:30pm - 1:45pm	Seats (Total: 19) ONLINE
	Restricted to CCJS students at Shady Grove.	

ENGL398E **Writing About Economics**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Examines the characteristic genres of writing in modern economics, including theoretical and empirically based journal articles, reports for government and commercial clients, and economic information presented to a variety of non-professional audiences, such as citizen-oriented and public policy organizations. Students learn how to analyze these documents rhetorically and how to communicate economic information using the content, arrangement, style, and visual graphics best suited to the purposes and standards of particular audiences. Core assignments include a genre-based journal and document analysis, presentations on economics-related topics for both economists and non-professional audiences, and a major research-based writing project for an audience outside of the classroom.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement.

Click here for more course information.

0801	Michael Winett MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 0232

ENGL398L **Scholarly Writing in the Humanities**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Examines scholarship in the humanities as a genre of professional writing and investigates the norms and procedures of advanced academic writing. Assignments parallel the writing demands that students will face in the academic workplace, including a graduate school application essay, a genre review, an annotated bibliography, a journal article, and an oral presentation of article subject matter.

Prerequisite:60 credits and completion of ENGL101. This course satisfies the professional writing requirement.An advanced composition class focusing on the norms and procedures of advanced academic writing.

Click here for more information.

0301	Mark Forrester MWF 11:00am - 11:50am	Seats (Total: 19) TWS 0207

ENGL398N **Writing for Non-Profit Organizations**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Examines professional writing and communication work in the non-profit sector. Students will analyze the audiences and document genres that they may encounter in real-world non-profit work and will learn how to compose many of these documents, from press releases and other public relations material to position papers, reports, and grant proposals. Students may also have the opportunity to add a service-learning component to the course by working with and for an area non-profit.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement.

Click here for more course information.

0301	Sarah Goodson MWF 11:00am - 11:50am	Seats (Total: 19) JMZ 0125
0501	Sarah Goodson MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 3136
0601	Sarah Goodson MW 2:00pm - 3:15pm	Seats (Total: 19) TWS 0236
1001	David Todd TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 0230
1101	David Todd TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0230
1102	Rebecca Holden TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0224
1201	David Todd TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 0230
1301	Rebecca Holden TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 0224

1401	Rebecca Holden TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 0224

ENGL398R **Writing Non-Fictional Narratives**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Approaches nonfiction narrative-a kind of writing influenced by fiction, magazine journalism, memoir, and personal essay--as a form of professional writing used in publishing and a range of careers involving proposal writing, work documentation, lobbying, social marketing, and political commentary, among others. Students learn to use many of the same tools as fiction writers, such as dialogue, vivid description, developing characters, nonlinear structure, and shifts in tense, time, and points of view. They also learn how to edit their own work as well as that of their peers, doing multiple revisions of the major assignments for a final portfolio. Major assignments include essays targeted to specific publications, query letters, audience analysis, and a publisher analysis.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement.

Click here for more course information.

1001	Jesse Brooks TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 0234
1101	Pamela Gerhardt TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0232
1102	Lyra Hilliard TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 3136
1201	Pamela Gerhardt TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 0232
1202	Pamela Gerhardt TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 0232
1501	Danuta Hinc TuTh 3:30pm - 4:45pm	Seats (Total: 19) TWS 0207

1505	Danuta Hinc TuTh 5:00pm - 6:15pm	Seats (Total: 19) TWS 0224

ENGL398V **Writing About the Environment**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Designed for those aspiring to work in a variety of fields that influence and are influenced by environmental science, including public policy, advocacy, science, and industry. Students learn to apply principles of technical writing to a range of scenarios and issues particular to the intersection of scientific knowledge and environmental policy. Writing audiences range from the public to decision-makers. The course emphasizes writing both within and across disciplines to enlist research for practical contexts.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement.

Click here for more course information.

1201	Jesse Brooks TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 1105
1301	Jesse Brooks TuTh 12:30pm - 1:45pm	Seats (Total: 19) KNI 1105
1401	Jesse Brooks TuTh 2:00pm - 3:15pm	Seats (Total: 19) ARC 1125
1501	Cameron Mozafari TuTh 3:30pm - 4:45pm	Seats (Total: 19) ONLINE
1701	Ruth Phillips Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 1310
1801	Ruth Phillips Th 6:30pm - 9:10pm	Seats (Total: 19) TWS 1107

ENGL402 **Chaucer**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Works read in Middle English. Readings may include Canterbury Tales, Troilus and Criseyde, dream visions, lyrics.

0101	Thomas Moser	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	TWS 1106

ENGL403 **Shakespeare: The Early Works**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Close study of selected works from the first half of Shakespeare's career. Generic issues of early histories, comedies, tragedies. Language, theme, dramatic technique, sources, and early modern English social-historical context.

0101	Kim Coles	Seats (Total: 20)
	TuTh 9:30am - 10:45am	TWS 0201

ENGL409C **Study Abroad Special Topics IV; Shakespeare's Italian Plays**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL409K **Study Abroad Special Topics IV; A Moveable Feast: Writing about Food**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL409L **Study Abroad Special Topics IV; Literature of London**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL416 **Literature of the Eighteenth Century, 1700-1750**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

British literary traditions, including the poetry of Pope, the prose of Swift, the correspondence of Montagu, the drama of Gay, and early novels by Defoe, Richardson, and Fielding.

0101	Laura Rosenthal	Seats (Total: 20)
	TuTh 9:30am - 10:45am	TWS 1107

ENGL425 **Modern British Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Major Modernist writers in English prose and poetry since 1900. Such writers as Eliot, Larkin, Forster, Burgess, Durrell, Henry Green, Golding, Auden, Malcolm Lowry, Joyce, and Yeats.

0101	Brian Richardson	Seats (Total: 20)
	TuTh 5:00pm - 6:15pm	TWS 1106

ENGL428N **Seminar in Language and Literature; Food Words: Stories, Being, and the Gut**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics will vary each semester. The course will provide a seminar experience in material or methodologies not otherwise available to the major.

Restriction: Junior standing. For ENGL majors only. Repeatable to 9 credits if content differs. Course intended primarily for students in English Honors Program. English majors with strong academic records may also apply. Permission from the Director of Honors required.

0101	Christina Walter	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	TWS 0201

ENGL428P **Seminar in Language and Literature; Australia, New Zealand, and the British Empire**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics will vary each semester. The course will provide a seminar experience in material or methodologies not otherwise available to the major.

Restriction: Junior standing. For ENGL majors only. Repeatable to 9 credits if content differs. Course intended primarily for students in English Honors Program. English majors with strong academic records may also apply. Permission from the Director of Honors required.

0101	Jason Rudy	Seats (Total: 20)
	MW 2:00pm - 3:15pm	TWS 0201

ENGL429 **Independent Research in English**

(Perm req)

Credits: 1-6 Grading Method: Regular

An advanced independent research project for qualified students, supervised by an English faculty member, on a topic not ordinarily covered in available courses.

Prerequisite: ENGL301 and two English courses, excluding Fundamental Studies requirement.

Contact department for information to register for this course.

ENGL435 **American Poetry: Beginning to the Present**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Selections of American poetry, from Bradstreet to contemporary free verse. Authors such as Whitman, Dickinson, Bishop, Hughes, Rich, and Frost.

Cross-listed with LGBT459M. Credit granted for ENGL435 or LGBT459M.

0101	Martha Nell Smith	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	TWS 1106

ENGL437 **Contemporary American Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Prose, poetry, drama of living American writers. Current cultural and social issues.

Contact department for information to register for this course.

ENGL439B **Spotlight on Major Writers; Hemingway and the Pathos of Gender**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

An intensive study of a single writer, or a handful of writers, to understand the shifts in the writer's craft and cultural influence, both past and present.

Prerequisite: two English courses in literature or permisson of department. Repeatable to 9 credits if content differs.

0101	David Wyatt	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	TWS 0236

ENGL439E **Spotlight on Major Writers; Faulkner and the Rumor of Race**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

An intensive study of a single writer, or a handful of writers, to understand the shifts in the writer's craft and cultural influence, both past and present.

Prerequisite: two English courses in literature or permission of department. Repeatable to 9 credits if content differs.

0101	David Wyatt	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	TWS 0201

ENGL439J **Spotlight on Major Writers; Race, Early Childhood TV, and the Legacies of Jim Henson**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

An intensive study of a single writer, or a handful of writers, to understand the shifts in the writer's craft and cultural influence, both past and present.

Prerequisite: two English courses in literature or permission of department. Repeatable to 9 credits if content differs.

0101	Chad Infante	Seats (Total: 20)
	MW 2:00pm - 3:15pm	TWS 0214

ENGL448C **Literature by Women of Color; Literature, Visual Culture and Art by Women of Color**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Literature by women of color in the United States, Britain, and in colonial and post-colonial countries.

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

0101	Sangeeta Ray	Seats (Total: 15)
	MW 5:00pm - 6:15pm	ONLINE

ENGL449A **Selected Topics in U.S. Latinx Literature; The Latinx Short Story**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced study of selected works by U.S. Latinx writers.

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

0101	Gabrielle Fuentes	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	TWS 0214

ENGL455 **The Eighteenth-Century English Novel**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

The origins and development of the British novel, from the late seventeenth century until the beginning of the nineteenth. Questions about what novels were, who wrote them, and who read them. Authors such as Behn, Defoe, Richardson, Fielding, Sterne, Smollett, Burney, Radcliffe, and Austen.

0101	Tita Chico	Seats (Total: 20)
	MW 3:30pm - 4:45pm	TWS 0221

ENGL456 **The Nineteenth-Century English Novel**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Surveys major novels of the period. Attention to narrative form and realism; representations of gender and class; social contexts for reading, writing and publishing. Authors such as Austen, Bronte, Dickens, George Eliot, Trollope.

Contact department for information to register for this course.

ENGL459C **Selected Topics in LGBTQ+ Literatures and Media; Life Writings in Different Media**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced study of a topic pertinent to literary and cultural expressions of LGBTQ+ identities, positionalities, and analytics through an exploration of literature, art, and/or media.

Repeatable to 9 credits if content differs. Crosslisting with LGBT459D. Credit only granted for ENGL459C or LGBT459D.

0101	Martha Nell Smith TuTh 12:30pm - 1:45pm	Seats (Total: 20) TWS 0221

ENGL460 Archival Research Methods in English Studies

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses beyond the Fundamental Studies courses; or permission of ARHU-English Department.

Introduces approaches for doing archival research in English studies, exploring how researchers develop their scope and practices of study and how they access and use archival materials electronically and on site to further their research questions. Investigates a historical period, genre, or theme through the lens of manuscripts, ephemera, and other artifacts. Case studies vary by semester.

Restriction: Two English courses beyond the Fundamental Studies courses; or permission of ARHU-English Department

0101	Jessica Enoch M 2:00pm - 3:15pm W 2:00pm - 3:15pm	Seats (Total: 20) TWS 1107 ONLINE

ENGL462 Folksong and Ballad

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

A cross-section of American folk and popular songs in their cultural contexts; artists from Bill Monroe to Robert Johnson.

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

0101	Barry Pearson TuTh 11:00am - 12:15pm	Seats (Total: 20) TWS 0201

ENGL467 Critical and Creative Approaches to Digital Textuality

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: One English course in literature; or permission of ARHU-English department.

Examines electronic literature and other aspects of the literary world online with a focus on experimental writing with computers. Topics may include digital fiction and storytelling, analysis of literary texts using digital tools, bots, book hacking, flash fiction, narrative in games, and the history of computer-generated writing. No programming experience required.

0101	Kari Kraus	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	TWS 0221

ENGL469J **The Craft of Literature: Creative Form and Theory; Writing the Impossible: Fantastic Beings, Haunted Places, Other Worlds**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Examines various forms of poetry and/or fiction, emphasizing the practice of making literary art and the aesthetic and theoretical approaches that define it. Students will practice the elements of literary craft, producing and experimenting with a wide range of forms and conventions in poetry and/or fiction. They will also produce critical work that articulates and contextualizes theoretical approaches to the making of literary art.

Prerequisite: Two English courses in literature or creative writing; and have completed a 200-level creative writing workshop in ENGL or permission of ARHU-English Department. Repeatable to 9 credits if content differs.

0101	Emily Mitchell	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	TWS 1106

ENGL470 **African-American Literature: From Slavery to Freedom**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Examines African-American literature from its beginnings to the early twentieth century, including genres ranging from slave narratives, pamphlets, essays, and oratory, to poetry and fiction. Our emphasis is on the interaction between literature and literary forms, on the one hand, and historical and political developments in the push toward emancipation, on the other.

Prerequisite: Two English courses in literature; or permission of ARHU- English department. Also offered as AASP478B. Credit granted for ENGL470or AASP478B.

0101	Edlie Wong	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	TWS 0236

ENGL475 **Postmodern Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

The origins and ongoing development of postmodern literature. Aspects of the "postmodern condition," such as the collapse of identity, the erasure of cultural and aesthetic boundaries, and the dissolution of life into textuality. The novel and other genres and media.

0101	Brian Richardson	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	TWS 0214

ENGL478A **Selected Topics in Literature before 1800; Comedy and Cruelty**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced study of key topics in literary works from earlier historical periods.

Prerequisite: two English courses in literature or permission of ARHU-English department. Repeatable to 9 credits if content differs.

0101	David Simon	Seats (Total: 15)
	MW 2:00pm - 3:15pm	TWS 0221

ENGL479F **Selected Topics in Literature after 1800; Walking and Writing: The Plays, Screenplays and Teleplays of Aaron Sorkin**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced study of key topics in literary works from later historical periods.

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

0101	Michael Olmert	Seats (Total: 20)
	Tu 3:30pm - 6:00pm	TWS 0205

ENGL479M **Selected Topics in Literature after 1800; Roots, Music and Film**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced study of key topics in literary works from later historical periods.

Prerequisite: Two English courses in literature or permission of ARHU-English department. Repeatable to 9 credits if content differs.

0101	Barry Pearson	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	TWS 0201

ENGL479Z **Selected Topics in Literature after 1800; South Asian Literature on the Move**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced study of key topics in literary works from later historical periods.

Prerequisite: Two English courses in literature or permission of ARHU-English department. Repeatable to 9 credits if content differs. Cross-listed with AAST498Z. Credit granted for ENGL479Z or AAST498Z.

0101	Sangeeta Ray	Seats (Total: 20)
	MW 3:30pm - 4:45pm	ONLINE

ENGL483 **American English(es)**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: LING200, ENGL280, or HESP120; or permission of ARHU-English department.

Examines the diversity of dialects, registers, and jargons of English found in the United States, as well as their origins, structures, and functions in society.

0101	Linda Coleman	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	TWS 0205

ENGL487 **Principles and Practices of Rhetoric**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

A seminar examining foundational concepts and approaches in the theory and practice of rhetoric in civic, professional, academic, and interpersonal settings; focusing on key issues in persuasion, argumentation, and eloquence in historical and contemporary contexts.

0101	Cecilia Shelton	Seats (Total: 20)
	MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	JMZ 0205 ONLINE

ENGL488G **Topics in Advanced Writing; Rhetoric of Style**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Different genres of technical and professional writing including proposal writing, computer documentation, technical report writing, instruction manuals, etc. Students will analyze models of a genre, produce their own versions, test, edit and revise them.

0101	Vessela Valiavitcharska	Seats (Total: 18)
	MWF 11:00am - 11:50am	TWS 0221
	Introduces the study of style in language: how word choice, sentence structure, prosody and rhythm, passage construction, and audience involvement contribute toward the meaning and rhetorical effect of texts.	

ENGL491 **Digital Rhetoric**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Students must have satisfied the Fundamental Studies Academic Writing requirement. Credit only granted for: ENGL489J, or ENGL491. Formerly: ENGL489J.

Examines the social significance of the ways digital texts are composed and circulated. Explores why it matters how the web is written and who does the writing, understanding the Internet as rhetorical from its content and communities to the code, protocols, and policies that control digital distribution. Includes active experimentation with digital tools so students can expand their theoretical understanding through critical making.

0101	Melanie Kill	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	TWS 3136

ENGL495 **Independent Study in Honors**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENGL373 and ENGL370. Restriction: Must be in English Language and Literature program; and candidacy for honors in English.

Completion and presentation of the senior honors project.

Contact department for information to register for this course.

ENGL497 **English at Work**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ENGL301; and an ENGL course at the 300-level or higher. Restriction: Must have earned a minimum of 60 credits.

Examines how English majors put their academic knowledge and skills to work in professional workplaces after graduation. Students learn strategies to research careers, and they shadow a person in a career of interest for a day. Students learn to compose different professional genres to write and speak about and for professional development and advancement, including inquiry letters, technical descriptions, professional portfolios, and elevator pitches. Students will critically examine the learning they have done in their undergraduate coursework and compose a vision for bringing that learning to life in their future work.

Restriction: Must be in English Language and Literature program; or must be in Secondary Educ: English Language Arts program.

0101	Melanie Kill TuTh 2:00pm - 3:15pm	Seats (Total: 20) TWS 3136
	Restricted to students in English Language and Literature, Secondary Educ: English Language Arts or Secondary Educ: English Language Arts (Pre).	

ENGL498 **Advanced Fiction Workshop; Advanced Fiction Workshop**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

An advanced class in the making of fiction. Intensive discussion of students' own fiction. Readings include both fiction and essays about fiction by practicing writers. Writing short critical papers, responding to works of fiction, and to colleagues' fiction, in-class writing exercises, intensive reading, and thinking about literature, in equal parts, and attendance at readings.

Prerequisite: ENGL396 or ENGL352; or permission of department.

0101	Rion Scott Tu 3:30pm - 6:00pm	Seats (Total: 15) TWS 3252
0201	Maud Casey M 3:30pm - 6:00pm	Seats (Total: 15) TWS 3134
0301	Gabrielle Fuentes Th 3:30pm - 6:00pm	Seats (Total: 15) TWS 3136

ENGL499 **Advanced Poetry Workshop; Advanced Poetry Workshop**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

An advanced class in the making of poetry. Intensive discussion of students' own poems. Readings include both poetry and essays about poetry by practicing poets. Writing short critical prose pieces, responding critically to colleagues' poems, in-class and outside writing exercises, and attendance at poetry readings.

Prerequisite: ENGL397 or ENGL353; or permission of department.

0101	Teri Cross	Seats (Total: 15)
	Tu 3:30pm - 6:00pm	ONLINE

ENGL611 **Approaches to College Composition**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: Permission of ARHU-English department. Additional information: Required for graduate assistants (optional to other graduate students).

A seminar emphasizing rhetorical and linguistic foundations for the handling of a course in freshman composition.

0101	Sara Wilder	Seats (Total: 14)
	Th 12:00pm - 2:30pm	TWS 3134

ENGL626 **Readings in American Literature before 1865**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

For majors only.

0101	Robert Levine	Seats (Total: 14)
	Tu 6:30pm - 9:00pm	TWS 3134

ENGL658C **Readings in Multi-Ethnic Literatures of the Americas; Narcolit and Narconarratives**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Highlights the cultural diversity of American literatures from various periods, including Latino/a, Native American, Asian American, and African American literatures within and beyond the United States.

Restriction: Permission of English Department. Repeatable to 9 credits if content differs. Cross-listed with CMLT679C. Credit granted for ENGL658C or CMLT679C.

0101	Sharada Balachandran Orihuela Tu 3:30pm - 6:00pm	Seats (Total: 14) TWS 3136

ENGL679 **Professional and Career Mentoring for Master's Students**

(Perm req)

Credits: 1-3 Grading Method: Sat-Fail

Augments advising currently provided by the English Department Graduate Studies Office. Individual professional and career mentoring for MA and MFA students from a faculty member.

Contact department for information to register for this course.

ENGL688 **Poetry Workshop; Poetry Workshop**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Poetry workshop.

0101	Joshua Weiner W 3:30pm - 6:00pm	Seats (Total: 12) TWS 3134

ENGL689 **Fiction Workshop; Fiction Workshop**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Fiction workshop.

0101	Maud Casey W 3:30pm - 6:00pm	Seats (Total: 12) TWS 3250

ENGL699 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Contact department for information to register for this course.

ENGL702 **Cultures of Theory**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Must have completed an introductory course in critical theory. Cross-listed with: CMLT702. Credit only granted for: CMLT702 or ENGL702.

An exploration of the socio-historic, material, and cultural contexts of various theoretical practices and traditions.

0101	Orrin Wang, Lee Konstantinou W 3:30pm - 6:00pm	Seats (Total: 11) TWS 3252

ENGL749A **Studies in Twentieth-Century Literature; Alimentary Tracts: Stories, Being,and the Ways of Food**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Christina Walter Th 3:30pm - 6:00pm	Seats (Total: 11) TWS 3132

ENGL759D **Seminar in Literature and the Other Arts; Booklab: History and Futures of the Book**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

0101	Matthew Kirschenbaum, Kellie Robertson Tu 3:30pm - 6:00pm	Seats (Total: 8) TWS 3250

ENGL776 **Seminar in Modern Rhetorical Theory**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of ARHU-English department. Additional information: May fulfill seminar requirements for MA in English with Concentration in Rhetoric and Composition.

Seminar in Modern Rhetorical Theory. Theories and trends in twentieth and twenty-first century rhetorical theory

0101	Scott Wible M 3:30pm - 6:00pm	Seats (Total: 11) TWS 3250

ENGL789 **Form and Theory in Fiction**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

A variety of prose modes (mediations, psychological studies, reportage myths, collage, magic realism, satire, etc.). Some of the writers to be read include Kafka, Cather, Barth, Kundera, and Barthelme.

0101	Emily Mitchell	Seats (Total: 11)
	Th 3:30pm - 6:00pm	TWS 3134

ENGL798B **Critical Theory Colloquium**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

An intensive advanced exploration of current problems and issues in critical theory.

0101	John Drabinski	Seats (Total: 15)
	Contact instructor or department for details.	

ENGL798D **Critical Theory Colloquium; Digital Studies**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

An intensive advanced exploration of current problems and issues in critical theory.

Cross-listed with MITH729. Credit granted for MITH729 or ENGL798D. Class meets in TWS 3136 on the following dates: 2/10, 2/24, 3/3, 3/31, and 4/28.

0101	Matthew Kirschenbaum	Seats (Total: 20)
	Meets February 7, 2022 - April 29, 2022	
	F 3:00pm - 5:00pm	Location: TBA

ENGL799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENGL878 **Pedagogical Mentoring for Doctoral Students**

(Perm req)

Credits: 1-3 Grading Method: Sat-Fail

Pedagogical mentoring by roster faculty members for graduate students teaching 200-level literature courses.

Contact department for information to register for this course.

ENGL879 **Professional Mentoring for Doctoral Students**

(Perm req) Credits: 1-3 Grading Method: Sat-Fail

Augments advising currently provided by the English Department Graduate Studies Office. Individual professional and career mentoring for PhD students from a faculty member.

Contact department for information to register for this course.

ENGL888 **Practicum in English Studies**

Credits: 1 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENGL898 **Pre-Candidacy Research**

(Perm req) Credits: 1-8 Grading Method: Regular

Pedagogical mentoring by roster faculty members for graduate students teaching 200-level literature courses.

Contact department for information to register for this course.

ENGL899 **Doctoral Dissertation Research**

(Perm req) Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENMA Engineering, Materials Spring 2022

ENMA165 **Introduction to Programming with Python**

(Perm req) Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ENGR-Materials Science & Engineering department. Credit only granted for: ENEE140 or ENMA165.

Introduces concepts of computer programming using Python from the point-of-view of engineers and scientists (as opposed to computer science). Students will learn the fundamentals of writing and implementing code, and exposed to practical aspects of programming as may be relevant to their studies and careers in the materials field. Topics/activities of note include data management and analysis, laboratory-related scripting, simple automation, and introduction to computational materials concepts.

0101	Jonathan Guyer	Seats (Total: 35)
	TuTh 5:00pm - 6:15pm	JMP 2202

ENMA201 **Bigger, Faster, Better: The Quest for Absolute Technology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNS, SCIS

Credit only granted for: ENMA201 or ENMA289A. Formerly: ENMA289A.

Can one prevent the transformation of technology from a friend to foe? Constant technological change characterizes our current lives and future, but ambivalence marks our relationships with technology. Students will be introduced to concepts necessary to understand scientific, engineering and societal driving forces of selected technological transformations, and the conflicts inherent in introduction of new technologies. We investigate approaches to judicious implementation of technology to prevent it changing from friend to foe.

0101	Gottlieb Oehrlein TuTh 12:30pm - 1:45pm F 11:00am - 11:50am	Seats (Total: 30) ATL 1113 EGR 2116	 Discussion
0102	Gottlieb Oehrlein TuTh 12:30pm - 1:45pm F 10:00am - 10:50am	Seats (Total: 30) ATL 1113 ANS 0412	 Discussion

ENMA300 **Introduction to Materials Engineering**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES100; and permission of ENGR-Materials Science & Engineering department. Corequisite: MATH241. Recommended: PHYS261 and PHYS260. Restriction: Permission of ENGR-Mechanical Engineering department. Cross-listed with ENME382. Credit only granted for: ENMA300 or ENME382.

Structure of materials, chemical composition, phase transformations, corrosion and mechanical properties of metals, ceramics, polymers and related materials. Materials selection in engineering applications.

0101	Samuel Schwarm MW 5:00pm - 6:15pm	Seats (Total: 100) CHE 2110
0201	Aristos Christou TuTh 9:30am - 10:45am	Seats (Total: 100) SQH 1120
0301	Timothy Koeth MWF 11:00am - 11:50am *Restricted to students majoring in Materials Science and Engineering.*	Seats (Total: 30) CHM 2201

ENMA301 **Modern Materials Engineering**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENMA180; or students who have taken courses with comparable content may contact the department. And ENMA300; and permission of ENGR-Materials Science & Engineering department.

Five topical areas will be presented, each leading up to specific applications that have recently come to market or are currently experiencing heavy research and development. The goal of each module will be to introduce the basic materials science principles necessary to understand these new areas.

0101	Isabel Lloyd TuTh 2:00pm - 3:15pm	Seats (Total: 46) CSI 1122	

ENMA312 **Experimental Methods in Materials Science**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENMA300. Corequisite: ENMA460. Restriction: Junior standing or higher.

Introduction to experimental methods in materials characterization; synthesis of colloidal nanoparticles; X-ray diffraction and light scattering; optical microscopy; thermal conductivity and expansion; electrical measurements; heat capacity; computational materials design.

0101	Audaldo Ponce Tu 5:00pm - 6:15pm W 9:00am - 11:50am	Seats (Total: 12) KEB 1135 KEB 1135	 Lab
0102	Audaldo Ponce Tu 5:00pm - 6:15pm M 9:00am - 11:50am	Seats (Total: 12) KEB 1135 KEB 1135	 Lab

ENMA421 **Design of Composites**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ENGR-Materials Science & Engineering department. Credit only granted for: ENMA421 or ENMA489A. Formerly: ENMA489A.

Fundamentals of design, processing and selection composite materials for structural applications will be covered. The topics include a review of all classes of materials, an in-depth analysis of micro and macro mechanical behavior including interactions at the two-phase interfaces, modeling of composite morphologies for optimal microstructures, material aspects, cost considerations, processing methods including consideration of chemical reactions and stability of the interfaces, and materials selection considerations.

0101	Sreeramamurthy Ankem	Seats (Total: 25)
	MWF 1:00pm - 1:50pm	JMP 2202

ENMA425 **Introduction to Biomaterials**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: ENMA300. Restriction: Permission of ENGR-Materials Science & Engineering department. Credit only granted for: BIOE453, CHBE457, or ENMA425.

Examination of materials used in humans and other biological systems in terms of the relationships between structure, fundamental properties and functional behavior. Replacement materials such as implants, assistive devices such as insulin pumps and pacemakers, drug delivery systems, biosensors, engineered materials such as artificial skin and bone growth scaffolds, and biocompatibility will be covered.

0101	Peter Kofinas	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	CSI 2118

ENMA426 **Reliability of Materials**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ENGR-Materials Science & Engineering department. Credit only granted for: ENMA426 or ENMA489R. Formerly: ENMA489R.

Students are taught the basic degradation mechanisms of materials, through the understanding of the physics, chemistry, mechanics of such mechanisms. Mechanical failure mechanisms concentrate on fatigue, and creep. Chemical failure mechanisms emphasize corrosion and oxidation. Physical mechanisms such as diffusion, electromigration, defects and defect migration, surface trapping mechanisms, charge creation and migration are also included.

0101	Aristos Christou	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	EGR 1102

ENMA436 **Introduction to Quantum Materials and Devices**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENMA460 and ENMA461 . Restriction: Permission of ENGR-Materials Science & Engineering department. Jointly offered with: ENMA636. Credit only granted for: ENMA436 or ENMA636.

Quantum materials and devices are an emerging field in materials engineering and physics which offer new approaches to electronics and photonics. This course serves as an introduction to quantum materials and their applications in quantum technologies. It will teach concepts needed to understand the quantum mechanical properties of materials and connect their fundamental properties to quantum device applications. Topics will include low-dimensional materials, strongly correlated electron systems, topology in solids, and light-matter interactions

0101	You Zhou MWF 2:00pm - 2:50pm	Seats (Total: 35) EGR 1104

ENMA445 **Liquid Crystals and Structured Soft Materials**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH246, PHYS270, and PHYS271. Restriction: Permission of ENGR-Materials Science & Engineering department. Credit only granted for: ENMA445 or ENMA489L. Formerly: ENMA489L.

Elective course on the properties and behavior of liquid crystals and related soft materials, and their relationship to biomaterials and to applications.

0101	Luz Martinez-Miranda TuTh 2:00pm - 3:15pm	Seats (Total: 10) CSI 2120

ENMA460 **Introduction to Solid State Physics**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS271, PHYS270, and MATH241. Restriction: Junior standing or higher; and must be in the Engineering: Materials Science program or Physics program. Cross-listed with: PHYS431. Credit only granted for: ENMA460 or PHYS431. Additional information: Materials Engineering students take ENMA460 and Physics students take PHYS431.

Classes of materials; introduction to basic ideal and real materials' behavior including mechanical, electrical, thermal, magnetic and optical responses of materials; importance of microstructure in behavior. One application of each property will be discussed in detail.

0101	Ichiro Takeuchi MW 5:00pm - 6:15pm	Seats (Total: 20) PHY 1402

ENMA461 **Thermodynamics of Materials**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENMA300. Restriction: Junior standing or higher.

Thermodynamic aspects of materials; basic concepts and their application in design and processing of materials and systems. Topics include: energy, entropy, adiabatic and isothermal processes, internal and free energy, heat capacity, phase equilibria and surfaces and interfaces.

0101	Timothy Foecke	Seats (Total: 45)
	TuTh 12:30pm - 1:45pm	CSI 2107

ENMA463 **Macroprocessing of Materials**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENMA300. Restriction: Junior standing or higher.

Processing of modern, bulk engineering materials. Raw materials, forming, firing, finishing and joining. More emphasis on metals and ceramics than polymers.

0101	Timothy Foecke	Seats (Total: 30)
	TuTh 6:30pm - 7:45pm	CHE 2136

ENMA465 **Microprocessing Materials**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENMA300. Restriction: Permission of ENGR-Materials Science & Engineering department. Credit only granted for: ENMA363, ENMA489B, or ENMA465. Formerly: ENMA363.

Micro and nanoscale processing of materials. Emphasis on thin film processing for advanced technologies.

0101	Gary Rubloff	Seats (Total: 55)
	MW 3:30pm - 4:45pm	KEB 1200

ENMA470 **Materials Selection for Engineering Design**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ENGR-Materials Science & Engineering department. Restriction: Junior standing or higher. Credit only granted for: ENMA 470 or ENMA 489O. Formerly: ENMA 489O.

Students will learn about materials classes, properties, limitations and applications and the methodology of materials selection in engineering design.

0101	Timothy Foecke	Seats (Total: 40)	
	MWF 12:00pm - 12:50pm	PHY 4221	

ENMA472 **Additive Manufacturing of Materials**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENMA300. Restriction: Must be in Engineering: Materials Science program. Credit only granted for: ENMA472 or ENMA672.

Additive manufacturing approaches for metals, ceramics and polymers will be explored in terms of manufacturability and how processing parameters affect microstructure and properties. The course will include projects, including a Terrapin Works project to design and build a part, to develop an understanding of the current state of additive manufacturing, its future promise and its limitations.

0101	Isabel Lloyd	Seats (Total: 30)	
	TuTh 11:00am - 12:15pm	EGR 2154	
	TuTh 10:00am - 10:50am	KEB 1135	Lab

ENMA481 **Introduction to Electronic and Optical Materials**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENMA300; or students who have taken courses with comparable content may contact the department.

Electronic, optical and magnetic properties of materials. Emphasis on materials for advanced optoelectronic and magnetic devices and the relationship between properties and the processing/fabrication conditions.

0101	Carlos Rios Ocampo	Seats (Total: 15)	
	TuTh 9:30am - 10:45am	EGR 0135	

ENMA486 **Seminar in Materials Science and Engineering**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Engineering: Materials Science program.

Current research in materials science and engineering and related fields. The lectures are presented by scientists and engineers from academia, national laboratory, US government, etc., in the format of seminars.

0101	Eric Wachsman, Ji-Cheng Zhao	Seats (Total: 3)	
	W 12:00pm - 1:30pm	CHE 2110	

ENMA489T **Selected Topics in Engineering Materials; Accelerator Physics - Building the Maryland 5 MeV Cyclotron**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in materials science and engineering.

Prerequisite: PHYS270 and PHYS271; senior standing, and permission of department.

0101	Brian Beaudoin	Seats (Total: 3)	
	TuTh 9:30am - 10:45am	EGR 3106	
	F 9:00am - 12:00pm	EGR 0312	Lab

ENMA490 **Materials Design**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENMA487. Restriction: Senior standing.

Capstone design course. Students work in teams on projects evaluating a society or industry based materials problem and then design and evaluate a strategy to minimize or eliminate the problem; includes written and oral presentations.

Class meets in Clark Hall Innovation lab, Bay area 5 and 6.

0101	Raymond Phaneuf	Seats (Total: 41)	
	TuTh 3:30pm - 5:30pm	CHE 2136	

ENMA499 **Senior Laboratory Project**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Students work with a faculty member on an individual laboratory project in one or more of the areas of engineering materials. Students will design and carry out experiments, interpret data and prepare a comprehensive laboratory report.

0101	Raymond Phaneuf	Seats (Total: 5)
	Contact instructor or department for details.	

ENMA620 **Polymer Physics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENMA471; or permission of instructor. Restriction: Permission of ENGR-Materials Science & Engineering department.

The thermodynamics, structure, morphology and properties of polymers. Developing an understanding of the relationships between theory and observed behavior in polymeric materials.

0101	Mohamad Al-Sheikhly	Seats (Total: 25)
	MW 5:00pm - 6:15pm	CHE 2145

ENMA621 **Advanced Design Composite Materials**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of ENGR-Materials Science & Engineering department. Credit only granted for: ENMA621 or ENMA698A. Formerly: ENMA698A.

Fundamentals of design, processing, and selection of composite materials for structural applications are covered. The topics include a review of all classes of engineering materials, an in-depth analysis of micro and macro mechanical behavior including interactions at the two-phase interfaces, modeling of composite morphologies for optimal microstructures, material aspects, cost considerations, processing methods- including consideration of chemical reactions, stability of the interfaces and material selection.

0101	Sreeramamurthy Ankem	Seats (Total: 10)
	MWF 1:00pm - 1:50pm	JMP 2202

ENMA636 **Introduction to Quantum Materials and Devices**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENMA650 and ENMA660 . Restriction: Permission of ENGR-Materials Science & Engineering department. Jointly offered with: ENMA436. Credit only granted for: ENMA436 or ENMA636.

Quantum materials and devices are an emerging field in materials engineering and physics which offer new approaches to electronics and photonics. This course serves as an introduction to quantum materials and their applications in quantum technologies. It will teach concepts needed to understand the quantum mechanical properties of materials and connect their fundamental properties to quantum device applications. Topics will include low-dimensional materials, strongly correlated electron systems, topology in solids, and light-matter interactions.

0101	You Zhou	Seats (Total: 5)
	MWF 2:00pm - 2:50pm	EGR 1104

ENMA645 **Advanced Liquid Crystals and Other Monomeric Soft Matter Materials**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of ENGR-Materials Science & Engineering department.

Elective course on the properties and behavior of liquid crystal and related soft materials, and their relationship to biomaterials and applications.

0101	Luz Martinez-Miranda	Seats (Total: 10)
	TuTh 2:00pm - 3:15pm	CSI 2120

ENMA661 **Kinetics of Reactions in Materials**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENMA660. Restriction: Permission of ENGR-Materials Science & Engineering department.

The theory of thermally activated processes in solids as applied to diffusion, nucleation and interface motion. Cooperative and diffusionless transformations. Applications selected from processes such as allotropic transformations, precipitation, martensite formation, solidification, ordering, and corrosion.

0101	Oded Rabin	Seats (Total: 28)
	MW 3:30pm - 4:45pm	CHE 2118

ENMA671 **Defects in Materials**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of ENGR-Materials Science & Engineering department.

Fundamental aspects of point (electronic and atomic) defects, dislocations, and surfaces and interfaces in materials. Defect interactions, defect models, and effects of zero, one and two dimensional defects on material behavior.

0101	Lourdes Salamanca-Riba	Seats (Total: 25)	
	TuTh 3:30pm - 4:45pm	EGR 1102	

ENMA672 **Additive Manufacturing of Materials**

Credits: 3 Grading Method: Regular, Sat-Fail

Restriction: Must be in one of the following programs (ENGR: MS/PhDMaterials Science and Engineering (Doctoral); ENGR: MS/PhDMaterials Science and Engineering (Master's)). Credit only granted for: ENMA472 or ENMA672.

Additive manufacturing approaches for metals, ceramics and polymers will be explored in terms of manufacturability and how processing parameters affect microstructure and properties. The course will include projects, including a Terrapin Works project to design and build a part, to develop an understanding of the current state of additive manufacturing, its future promise and its limitations.

0101	Isabel Lloyd	Seats (Total: 5)	
	TuTh 11:00am - 12:15pm	EGR 2154	
	TuTh 10:00am - 10:50am	KEB 1135	Lab

ENMA685 **Advanced Electrical and Optical Materials**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: ENMA685 or ENMA698F. Formerly: ENMA698F.

Students become familiar with basic and state of the art knowledge of some technologically relevent topics in materials engineering and applied physics, including dielectric/ferroelectric materials, magnetic materials, superconductors, multiferroic materials and optical materials with an underlying emphasis on the thin film and device fabrication technology. Fundamental physical properties and descriptions of different materials and their applications are included. Discussion will include new developments in the fields.

0101	Carlos Rios Ocampo	Seats (Total: 5)
	TuTh 9:30am - 10:45am	EGR 0135

ENMA688 **Seminar in Materials Science and Engineering**

Credits: 1 Grading Method: Regular, Audit

Current research in materials science and engineering and related fields.

0101	Ji-Cheng Zhao, Eric Wachsman	Seats (Total: 28)
	W 12:00pm - 1:30pm	CHE 2110

ENMA698 **Special Problems in Materials Science and Engineering**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Individual, supervised study in materials science and engineering.

Contact department for information to register for this course.

ENMA797 **Independent Study**

Credits: 3 Grading Method: Regular, Audit

This course is designed to provide students with a directed independent study course in order to prepare the scholarly paper required for the master's degree without thesis degree option.

0101	Ichiro Takeuchi	Seats (Total: 6)
	Contact instructor or department for details.	

ENMA799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENMA898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

ENMA899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENME Engineering, Mechanical Spring 2022

ENME202 **Computing Fundamentals for Engineers**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Corequisite: Must be concurrently enrolled in MATH141. Restriction: Permission of ENGR-Mechanical Engineering department. Credit only granted for: ENAE202 or ENME202.

Introduction to computational tools for the solution of engineering problems. C++ & MATLAB programming including branching and loops, functions, file handling, arrays, and data structures. Students will be introduced to object-oriented programming, basic computing, algorithms, and principles of software engineering.

0201	Don DeVoe TuTh 8:00am - 8:50am Th 3:00pm - 5:00pm	Seats (Total: 42) EGR 1202 KEB 2111	 Lab
0202	Don DeVoe TuTh 8:00am - 8:50am W 5:00pm - 7:00pm	Seats (Total: 42) EGR 1202 KEB 2111	 Lab
0203	Don DeVoe TuTh 8:00am - 8:50am F 11:00am - 1:00pm	Seats (Total: 42) EGR 1202 KEB 2111	 Lab
0204	Don DeVoe TuTh 8:00am - 8:50am W 4:00pm - 6:00pm	Seats (Total: 30) EGR 1202 KEB 2107	 Lab
0205	Don DeVoe TuTh 8:00am - 8:50am W 4:00pm - 6:00pm	Seats (Total: 29) EGR 1202 EGR 0312	 Lab

ENME272 **Introduction to Computer Aided Design**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in MATH141. Restriction: Permission of ENGR-Mechanical Engineering department. Credit only granted for: ENME414 or ENME272.

Fundamentals of CAD, using solid modeling packages (Pro/E, SolidWorks, and Autodesk Inventor). Two and three dimensional drawing. Dimensioning and specifications. Introduction of CAD based analysis tools. Students will complete a design project.

0101	Mohammad Fazelpour M 8:00am - 9:50am	Seats (Total: 42) KEB 2111

0201	Mohammad Fazelpour Tu 8:00am - 9:50am	Seats (Total: 42) KEB 2111	
0301	Mohammad Fazelpour W 8:00am - 9:50am	Seats (Total: 42) KEB 2111	
0401	Ryan Smith Th 8:00am - 9:50am	Seats (Total: 42) KEB 2111	
0501	Ryan Smith F 8:00am - 9:50am	Seats (Total: 42) KEB 2111	

ENME331 **Fluid Mechanics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES232 and ENES221. Credit only granted for: BIOE331, ENCE305, ENFP300, or ENME331.

Principles of fluid mechanics. Mass, momentum and energy conservation. Hydrostatics. Control volume analysis. Internal and external flow. Boundary layers. Modern measurement techniques. Computer analysis. Laboratory experiments.

0101	Amir Riaz, Cecilia Huertas Cerdeira MW 12:00pm - 12:50pm Th 3:00pm - 4:40pm	Seats (Total: 40) PHY 1410 HBK 0103	Lab
0102	Cecilia Huertas Cerdeira, Amir Riaz MW 12:00pm - 12:50pm W 1:00pm - 2:50pm	Seats (Total: 40) PHY 1410 PLS 1119	Lab
0103	Cecilia Huertas Cerdeira, Amir Riaz MW 12:00pm - 12:50pm Th 1:00pm - 2:50pm	Seats (Total: 40) PHY 1410 ARC 1105	Lab
0104	Cecilia Huertas Cerdeira, Amir Riaz MW 12:00pm - 12:50pm W 3:00pm - 4:50pm	Seats (Total: 40) PHY 1410 CHM 1228	Lab

ENME332 **Transfer Processes**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENME331. Credit only granted for: ENME332 or ENFP312.

The principles of heat transfer. Conduction in solids. Convection. Radiation. Modern measurement techniques. Computer analysis.

0101	Bao Yang, Siddhartha Das MW 9:00am - 9:50am Tu 1:00pm - 2:50pm	Seats (Total: 40) ARM 0135 CHE 2136	 Lab
0102	Siddhartha Das, Bao Yang MW 9:00am - 9:50am W 1:00pm - 2:50pm	Seats (Total: 40) ARM 0135 ITV 1111	 Lab
0103	Bao Yang, Siddhartha Das MW 9:00am - 9:50am Th 1:00pm - 2:50pm	Seats (Total: 40) ARM 0135 CHE 2136	 Lab
0104	Siddhartha Das, Bao Yang MW 9:00am - 9:50am M 1:00pm - 2:50pm	Seats (Total: 40) ARM 0135 PHY 1204	 Lab
0106	Siddhartha Das, Bao Yang MW 9:00am - 9:50am M 3:00pm - 4:50pm	Seats (Total: 40) ARM 0135 CHM 1228	 Lab

ENME350 **Electronics and Instrumentation I**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: PHYS271 and PHYS270.

Modern instrumentation. Basic circuit design, standard microelectronic circuits. Digital data acquisition and control. Signal conditioning. Instrumentation interfacing. Designing and testing of analog circuits. Laboratory experiments.

0101	Xinan Liu, Jungho Kim MW 8:00am - 8:50am M 1:00pm - 2:50pm	Seats (Total: 40) EGR 1202 ITV 1111	 Lab

0102	Xinan Liu, Jungho Kim MW 8:00am - 8:50am Tu 3:30pm - 5:20pm	Seats (Total: 40) EGR 1202 EGR 3106	 Lab
0103	Xinan Liu, Jungho Kim MW 8:00am - 8:50am W 3:30pm - 5:20pm	Seats (Total: 40) EGR 1202 ITV 1111	 Lab
0104	Xinan Liu, Jungho Kim MW 8:00am - 8:50am Th 3:30pm - 5:20pm	Seats (Total: 40) EGR 1202 CHM 2201	 Lab

ENME351 **Electronics and Instrumentation II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS271, ENME350, and PHYS270.

Continuation of ENME 350. Modern instrumentation. Basic circuit design, standard microelectronic circuits. Digital data acquisition and control. Signal conditioning. Instrumentation interfacing. Designing and testing of analog circuits. Laboratory experiments.

0101	Steven Mitchell, Avik Dutt MW 8:00am - 8:50am M 3:30pm - 5:20pm	Seats (Total: 48) ARM 0135 EGR 3108	 Lab
0102	Avik Dutt, Steven Mitchell MW 8:00am - 8:50am Th 1:00pm - 2:50pm	Seats (Total: 48) ARM 0135 EGR 3108	 Lab
0103	Steven Mitchell, Avik Dutt MW 8:00am - 8:50am W 1:00pm - 2:50pm	Seats (Total: 48) ARM 0135 EGR 3108	 Lab
0106	Steven Mitchell, Avik Dutt MW 8:00am - 8:50am Tu 1:00pm - 2:50pm	Seats (Total: 48) ARM 0135 EGR 3108	 Lab
0107	Avik Dutt, Steven Mitchell MW 8:00am - 8:50am F 1:00pm - 2:50pm	Seats (Total: 48) ARM 0135 EGR 3108	 Lab

ENME361 **Vibration, Controls and Optimization I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES220, ENES221, and MATH246; and (MATH206 or ENME202). Restriction: Must be in Engineering: Mechanical program.

Fundamentals of vibration, controls and optimization. Analysis and design in time, Laplace and frequency domains. Mathematical description of system response, system stability, control and optimization. Optimal design of mechanical systems.

0101	Joshua Radice TuTh 9:30am - 10:45am	Seats (Total: 120) JMP 3201	
0301	Eleonora Tubaldi TuTh 9:30am - 10:45am	Seats (Total: 75) SYM 0200	

ENME371 **Product Engineering and Manufacturing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES221; and (ENME392 or STAT400). Restriction: Must be in Engineering: Mechanical program.

Business aspects of engineering product development. Relationship of design and manufacturing. Product specification. Statistical process control. Design team development. The development process.

0201	Vincent Nguyen MW 11:00am - 11:50am W 6:00pm - 7:50pm	Seats (Total: 35) ONLINE EGL 0101	Lab
0202	Vincent Nguyen MW 11:00am - 11:50am Th 3:00pm - 4:50pm	Seats (Total: 35) ONLINE EGL 0101	Lab
0203	Vincent Nguyen MW 11:00am - 11:50am F 9:00am - 10:50am	Seats (Total: 35) ONLINE EGL 0101	Lab
0204	Vincent Nguyen MW 11:00am - 11:50am Th 5:00pm - 6:50pm	Seats (Total: 35) ONLINE EGL 0101	Lab

0205	Vincent Nguyen MW 11:00am - 11:50am Th 7:00pm - 8:50pm	Seats (Total: 35) ONLINE EGL 0101	 Lab

ENME382 **Introduction to Materials Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES100; and permission of ENGR-Mechanical Engineering department. Corequisite: MATH241. Recommended: PHYS261 and PHYS260. Restriction: Permission of ENGR-Mechanical Engineering department. Cross-listed with ENMA300. Credit only granted for: ENMA300 or ENME382.

Structure of materials, chemical composition, phase transformations, corrosion and mechanical properties of metals, ceramics, polymers and related materials. Materials selection in engineering applications.

0101	Samuel Schwarm MW 5:00pm - 6:15pm	Seats (Total: 100) CHE 2110
0201	Aristos Christou TuTh 9:30am - 10:45am	Seats (Total: 100) SQH 1120

ENME392 **Statistical Methods for Product and Processes Development**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH241.

Integrated statistical methodology for the improvement of products and processes in terms of performance, quality and cost. Designed experimentation. Statistical process control. Software application. Laboratory activities.

0101	Mark Fuge TuTh 11:00am - 12:15pm	Seats (Total: 100) JMP 3201
0201	Michel Cukier TuTh 11:00am - 12:15pm	Seats (Total: 100) CHE 2110

ENME400 **Machine Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in ENME361. Restriction: Permission of ENGR-Mechanical Engineering department.

Design of mechanical elements and planar machines. Failure theories. Design of pressure vessels, joints, rotating elements, and transmission elements. Kinematic structures, graphical, analytical, and numerical analysis and synthesis of linkages, gear trains, and flywheels are covered.

0101	Chandrasekhar Thamire TuTh 3:30pm - 4:20pm F 1:00pm - 2:50pm	Seats (Total: 75) BPS 1250 CCC 1100	 Discussion
0102	Chandrasekhar Thamire TuTh 3:30pm - 4:20pm F 10:00am - 11:50am	Seats (Total: 70) BPS 1250 BPS 1243	 Discussion

ENME406 **Roller Coaster Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES220, ENES221, and ENME272. And ENME202; or MATH206. Corequisite: ENME400. Restriction: Permission of ENGR-Mechanical Engineering department.

Engineering of roller coasters including: specifications, concept creation, structural design, car design, and safety. Course covers biomechanics and rider kinematics as well as manufacturing aspects.

0101	Chandrasekhar Thamire TuTh 2:00pm - 3:15pm	Seats (Total: 50) ESJ 2204	

ENME408 **Selected Topics in Engineering Design; Automotive Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Creativity and innovation in design. Generalized performance analysis, reliability and optimization as applied to the design of components and engineering systems. Use of computers in design of multivariable systems.

Restriction: Must be in Engineering: Mechanical program; and senior standing. Or permission of ENGR-Mechanical Engineering department. Repeatable to 6 credits if content differs. Creativity and innovation in design. Generalized performance analysis, reliability and optimization as applied to the design of components and engineering systems. Use of computers in design of multivariable systems.

0101	Leonard Hamilton MW 5:00pm - 6:15pm	Seats (Total: 50) ATL 1113	

ENME410 **Design Optimization**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENME271; or MATH206. Restriction: Permission of ENGR-Mechanical Engineering department; and junior or senior standing.

Introduction to the formal process of design optimization, including analytical and computational methods. Step by step design optimization techniques. Design optimization concepts, necessary and sufficient optimality conditions and solution techniques. Solution evaluation and tradeoff exploration.

0101	Shapour Azarm	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	EGR 2154

ENME416 **Additive Manufacturing**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENME331. And ENME272; or ENME414. Restriction: Permission of ENGR-Mechanical Engineering department.

Develop a comprehensive understanding of fundamental additive manufacturing, 3D printing approaches, including: extrusion-based deposition, stereolithography, powder bed-based melting, and inkjet-based deposition. Cultivate a design for-additive manufacturing skillset for CAD and CAM methodologies to produce successful 3D prints. Fabricate 3D mechanical objects using a variety of 3D printing technologies on campus. Execute a design project that demonstrates how additive manufacturing technologies can overcome critical limitations of traditional manufacturing processes.

0101	Ryan Sochol	Seats (Total: 30)
	MWF 1:00pm - 1:50pm	JMP 2121

ENME424 **Urban Microclimate and Energy**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in ENME332. Recommended: ENME423. Restriction: Permission of ENGR-Mechanical Engineering department. Credit only granted for: ENME424 or ENME808I.

Urban microclimate from the perspective of transient heat and mass transfer using building energy simulations for building clusters as well as LEED building certification criteria. The focus is on understanding building energy consumption and environmental impacts from the individual building scale to a neighborhood scale.

0101	Jelena Srebric	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	CSI 1122

ENME427 **CSI Mechanical: Finding Reasons for Compromised Structural Integity**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES220 and ENME382. Restriction: Permission of ENGR-Mechanical Engineering department.

Understanding the causes of product failures including the political, societal, economic, environmental, and ethical impact of these failures, and the strategies to avoid, postpone, or mitigate them. Students will be encouraged to combine concepts from engineering, natural sciences, social sciences, and the humanities to address these complex issues. Basics of failure analysis, forensics, and reliability engineering and the scientific fundamentals underlying the most common types of failure. Issues of legal liability. Methods for monitoring the existing condition of a structure.

0101	Patrick McCluskey	Seats (Total: 60)
	MW 3:30pm - 4:45pm	CHE 2110

ENME431 **Nuclear Reactor Systems and Safety**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH246. Recommended: ENME430. Restriction: Permission of ENGR-Mechanical Engineering department.

Engineering, material and thermal aspects of light water reactors, fast reactors, high temperature gas reactors, heavy water moderated reactors, breeder reactors, advanced reactors including GEN IV designs. Evolution of light water reactor safety and regulation in the US that has culminated in the current body of regulations.

0101	Mahmoud Massoud	Seats (Total: 40)
	MW 2:00pm - 3:15pm	JMP 2121

ENME436 **Renewable Energy**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENME331. Restriction: Must be in a major within the ENGR-Mechanical Engineering department. Credit only granted for: ENME489K or ENME436. Formerly: ENME489K.

Fundamentals, design/analysis tools, and state of the art renewable energy technologies. Energy resources and global perspectives of current and future energy demand/consumption trends, followed by prime renewable energy technologies, including wind, solar, hydro, geothermal, and ocean thermal energy conversion. Economics of renewable energy, energy conservation opportunities, CO2 capture and storage, and thermal energy storage.

0101	Ashwani Gupta Th 4:00pm - 6:40pm	Seats (Total: 46) JMP 2116	

ENME461 **Control Systems Laboratory**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENME351 and ENME361. Restriction: Permission of ENGR-Mechanical Engineering department. Credit only granted for: ENEE461 or ENME461.

Students will design, implement, and test controllers for a variety of systems. This will enhance their understanding of feedback control familiarize them with the characteristics and limitations of real control devices. Students will also complete a small project. This will entail writing a proposal, purchasing parts for their controller, building the system, testing it, and writing a final report describing what they have done.

Cross-listed with ENEE461. Credit offered for ENME461 or ENEE461.

0101	William Levine MW 9:00am - 9:50am M 1:00pm - 3:50pm	Seats (Total: 14) KEB 1110 KEB 3209	 Lab
0102	William Levine MW 9:00am - 9:50am W 1:00pm - 3:50pm	Seats (Total: 14) KEB 1110 KEB 3209	 Lab
0103	William Levine MW 9:00am - 9:50am F 9:00am - 11:50am	Seats (Total: 14) KEB 1110 KEB 3209	 Lab
0104	William Levine MW 9:00am - 9:50am W 10:00am - 12:50pm	Seats (Total: 14) KEB 1110 KEB 3209	 Lab

ENME462 **Vibrations, Controls, and Optimization II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENME361. Restriction: Permission of the Mechanical Engineering Department.

Continuation of ENME361. Fundamentals of vibration, controls, and optimization. Analysis and design in time, Laplace and frequency domains. Mathematical descriptions of system response, system stability, control and optimization. Optimal design of mechanical systems.

0101	Amr Baz, Jin-Oh Hahn MW 10:00am - 10:50am W 11:00am - 12:50pm	Seats (Total: 29) MMH 1400 EGR 0312	Lab
0102	Jin-Oh Hahn, Amr Baz MW 10:00am - 10:50am Th 1:00pm - 2:50pm	Seats (Total: 42) MMH 1400 KEB 2111	Discussion
0103	Jin-Oh Hahn, Amr Baz MW 10:00am - 10:50am F 1:00pm - 2:50pm	Seats (Total: 42) MMH 1400 KEB 2111	Discussion
0104	Jin-Oh Hahn, Amr Baz MW 10:00am - 10:50am W 8:00am - 9:50am	Seats (Total: 29) MMH 1400 EGR 0312	Discussion
0105	Amr Baz, Jin-Oh Hahn MW 10:00am - 10:50am W 11:00am - 12:50pm	Seats (Total: 30) MMH 1400 KEB 2107	Discussion
0106	Jin-Oh Hahn, Amr Baz MW 10:00am - 10:50am Tu 5:00pm - 6:50pm	Seats (Total: 21) MMH 1400 KEB 2107	Discussion

ENME464 **Cost Analysis for Engineers**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENME392; or students who have taken courses with comparable content may contact the department. Restriction: Permission of ENGR-Mechanical Engineering department.

An introduction to the financial and cost analysis aspects of product engineering. Introduces key elements of traditional engineering economics including interest, present worth, depreciation, taxes, inflation, financial statement analysis, and return on investment. Provides an introduction to cost modeling as it applies to product manufacturing and support. Cost modeling topics will include: manufacturing cost analysis, life-cycle cost modeling (reliability and warranty), and cost of ownership.

0101	Peter Sandborn TuTh 2:00pm - 3:15pm	Seats (Total: 90) JMP 3201	

ENME466 **Lean Six Sigma**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Corequisite: ENME392; or students who have taken courses with comparable content may contact the department. Restriction: Permission of ENGR-Mechanical Engineering department.

This course intends to provide in-depth understanding of Lean Six Sigma and its Define - Mearsure - Analyze - Improve - Control (DMAIC) Breakthrough Improvement Strategy. The emphasis is placed on the DMAIC process which is reinforced via application of semester long corporate projects and case study analysis.

0101	David Bigio TuTh 3:30pm - 4:45pm	Seats (Total: 40) CSI 3120	

ENME467 **Engineering for Social Change**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must not be in Engineering: Mechanical program; and junior standing or higher; and must be in a major in ENGR-A. James Clark School of Engineering. Cross-listed with: ENES467. Credit only granted for: ENES467 or ENME467.

Critical analysis of issues at the intersection of engineering, philanthropy and social change. How engineering design, products and processes have created social change in the past and will do so in the future through both intended and unintended consequences. Topics covered include energy, sustainability and climate change, autonomy, the digital future, low cost engineering, manufacturing, philanthropy, ethics and the impact of electronics on society, among others. Faculty and external experts will engage with students on these topics. Students will broadly engage with organizations involved in using technology for positive social impact.

0101	Sami Ainane, Davinder Anand M 3:30pm - 5:00pm Tu 3:30pm - 5:00pm	Seats (Total: 50) CHM 1402 KEB 1200	 Discussion
0102	Davinder Anand, Sami Ainane M 3:30pm - 5:00pm Th 3:30pm - 5:00pm	Seats (Total: 50) CHM 1402 KEB 1200	 Discussion

ENME472 **Integrated Product and Process Development**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: CS

Prerequisite: ENME331, ENME361, ENME351, and ENME371; and must have completed or be concurrently enrolled in ENME332. Restriction: Permission of the Department of Mechanical Engineering.

Integration of product development with the development process. Design strategies. Product architecture. Design for manufacturing. Selection of materials. Design for assembly.

0101	Sami Ainane Tu 12:00pm - 1:50pm TuTh 11:00am - 11:50am	Seats (Total: 42) EGL 0105 ONLINE	Discussion
0201	Vincent Nguyen W 12:00pm - 1:50pm TuTh 11:00am - 11:50am	Seats (Total: 36) EGL 0105 ONLINE	Discussion
0301	David Bigio Th 12:00pm - 1:50pm TuTh 11:00am - 11:50am	Seats (Total: 40) EGL 0105 ONLINE	Discussion
0401	Aris Cleanthous F 11:00am - 12:50pm TuTh 11:00am - 11:50am	Seats (Total: 42) EGL 0105 ONLINE	Discussion
0601	Amir Shooshtari W 6:00pm - 7:50pm TuTh 11:00am - 11:50am	Seats (Total: 36) EGL 0105 ONLINE	Discussion
0701	Ratnesh Tiwari Th 2:00pm - 3:50pm TuTh 11:00am - 11:50am	Seats (Total: 36) EGL 0105 ONLINE	Discussion
0801	Ratnesh Tiwari Th 4:00pm - 5:50pm TuTh 11:00am - 11:50am	Seats (Total: 36) EGL 0105 ONLINE	Discussion

ENME488 **Special Problems**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Advanced problems in mechanical engineering with special emphasis on mathematical and experimental methods.

Limited to mechanical engineering seniors.

Contact department for information to register for this course.

ENME489 **Special Topics in Mechanical Engineering**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in mechanical engineering.

Contact department for information to register for this course.

ENME489D **Special Topics in Mechanical Engineering; Flight Dynamics and Simulation**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in mechanical engineering.

Prerequisite: ENME489F.

0201	David Findlay	Seats (Total: 6)
	Tu 3:30pm - 6:10pm	JMP 2120

ENME489E **Special Topics in Mechanical Engineering; Design for Sustainability**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in mechanical engineering.

0101	Senthil Arul	Seats (Total: 25)
	TuTh 5:00pm - 6:15pm	EGR 3102
	Contact instructor or department for details.	

ENME489I **Special Topics in Mechanical Engineering; Decarbonization of Building Systems through Energy Audit and Optimization, Renewable Energy, and Electrification**

Credits: 3

Grading Method: Regular, Audit

Selected topics of current importance in mechanical engineering.

Prerequisites: Senior standing or approval of the instructor.

0101	Michael Ohadi TuTh 2:00pm - 3:15pm	Seats (Total: 25) PLS 1146

ENME489J **Special Topics in Mechanical Engineering; Fatigue Life Prediction**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in mechanical engineering.

Contact department for information to register for this course.

ENME489L **Special Topics in Mechanical Engineering; Bio-Inspired Robotics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in mechanical engineering.

Pre- or corequisite: ENME351 and permission of department.

0101	Hugh Bruck MW 3:30pm - 4:45pm Contact instructor or department for details.	Seats (Total: 40) PHY 2214

ENME489M **Special Topics in Mechanical Engineering; Advanced Fluid Mechanics with Applications**

Credits: 3 Grading Method: Regular, Audit

Selected topics of current importance in mechanical engineering.

Prerequisite: ENME202 and ENME331.

0101	Johan Larsson TuTh 12:30pm - 1:45pm	Seats (Total: 30) EGR 0135

ENME489P **Special Topics in Mechanical Engineering; Control of Smart Structures**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in mechanical engineering.

Prerequisite: ENME361

0101	Amr Baz TuTh 3:30pm - 4:45pm	Seats (Total: 40) CSI 3117

ENME489T **Special Topics in Mechanical Engineering; Nuclear Reactor Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in mechanical engineering.

0101	Mahmoud Massoud MW 11:00am - 12:15pm	Seats (Total: 15) JMP 2222

ENME489Y **Special Topics in Mechanical Engineering; Remote Sensing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in mechanical engineering.

Prerequisite: ENME351.

0101	Steven Mitchell TuTh 9:30am - 10:45am	Seats (Total: 65) CHE 2108

ENME607 **Engineering Decision Making and Risk Management**

Credits: 3 Grading Method: Regular, Audit

Cross-listed with ENRE671. Credit only granted for: ENME808X, ENRE671 or ENME607. Formerly: ENME 808X.

Individual decision-making, group decisionmaking, and organizations of decision-makers in the context of engineering design, project management, and other functions. Techniques for making better decisions, for understanding how decisions are related to each other, and for managing risk.

Cross-listed with ENRE671. Credit granted for ENME607 or ENRE671.

0101	Jeffrey Herrmann TuTh 2:00pm - 3:15pm	Seats (Total: 30) JMP 2222
ER01	Jeffrey Herrmann Class time/details on ELMs	Seats (Total: 15) ONLINE

RE01	Jeffrey Herrmann	Seats (Total: 10)
	Class time/details on ELMs	ONLINE

ENME632 **Advanced Convection Heat Transfer**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: ENNU615 or ENME632.

Statement of conservation of mass, momentum and energy. Laminar and turbulent heat transfer in ducts, separated flows, and natural convection. Heat and mass transfer in laminar boundary layers. Nucleate boiling, film boiling, Leidenfrost transition and critical heat flux. Interfacial phase change processes; evaporation, condensation, industrial applications such as cooling towers, condensers. Heat exchangers design.

0101	Jungho Kim	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	EGR 3114

ENME633 **Molecular Thermodynamics**

Credits: 3 Grading Method: Regular, Audit

An examination of the interactions between molecules, which govern thermodynamics relevant to engineering, will be conducted. We will investigate both classical and statistical approaches to thermodynamics for understanding topics such as phase change, wetting of surfaces, chemical reactions, adsorption, and electrochemical processes. Statistical approaches and molecular simulation tools will be studied to understand how molecular analysis can be translated to macroscopic phenomena.

0101	Bao Yang	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	EGR 3114

ENME635 **Energy Systems Analysis**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Undergraduate thermodynamics course or permission of the instructor. Credit only granted for: ENPM635 or ENME635.

Methods for the analysis of conventional and novel energy systems are taught throughout the course. Additional topics are, using the US National Energy Flow Chart to understand sources of carbon emissions, discussion of energy efficiency improvement methods, discussion of decarbonization and carbon capture and sequestration approaches and their impact on efficiency and emissions.

0101	Kurt Reinhard Radermacher Tu 4:00pm - 6:40pm	Seats (Total: 25) JMP 2217
ME01	Kurt Reinhard Radermacher Class time/details on ELMs	Seats (Total: 15) ONLINE

ENME641 **Viscous Flow**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENME640; or students who have taken courses with comparable content may contact the department; or permission of instructor. Formerly: ENME652.

Fluid flows where viscous effects play a significant role. Examples of steady and unsteady flows with exact solutions to the Navier-Stokes equations. Boundary layer theory. Stability of laminar flows and their transition to turbulence.

0101	Amir Riaz MW 9:30am - 10:45am	Seats (Total: 25) JMP 1109

ENME664 **Dynamics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENES221; or students who have taken courses with comparable content may contact the department; or permission of instructor.

Kinematics in plane and space; Dynamics of particle, system of particles, and rigid bodies. Holonomic and non-holonomic constraints. Newton's equations, D'Alembert's principle, Hamilton's principle, and equations of Lagrange. Impact and collisions. Stability of equilibria.

0101	B Balachandran TuTh 3:30pm - 4:45pm	Seats (Total: 25) CHE 2145

ENME672 **Composite Materials**

Credits: 3 Grading Method: Regular, Audit

Micromechanics of advanced composites with passive and active reinforcements, mathematical models and engineering implications, effective properties and damage mechanics, recent advances in "adaptive" or "smart" composites.

0101	Abhijit Dasgupta MW 12:30pm - 1:45pm	Seats (Total: 20) JMP 2222
DE01	Abhijit Dasgupta Class time/details on ELMs	Seats (Total: 15) ONLINE

ENME674 **Finite Element Methods**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in one of the following programs (ENGR: MS/PhDMechanical Engineering (Master's); ENGR: MS/PhDMechanical Engineering (Doctoral); ENGR: MS/PhDReliability Engineering (Master's); ENGR: MS/PhDReliability Engineering (Doctoral); or permission of ENGR-Mechanical Engineering department. Credit only granted for: ENME 674, ENAE652, ENPM652 or ENPM808F.

Theory and application of finite element methods for mechanical engineering problems such as stress analysis. Basic development of the method for solving the types of governing partial differential equations that are the foundations for many engineering and physical sciences. The emphasis is on balancing the theoretical/mathematical background with a computable implementation to reach applications. Some code writing and debugging will be involved. This class is suited for graduate students or high-achieving undergraduates in engineering, mathematics, or the physical sciences. A very basic knowledge of matrix-vector calculations and multivariable calculus are required. Some exposure to partial differential equations and experience with Matlab or a compiled language will be helpful but are not required.

0101	Peter Chung TuTh 2:00pm - 3:15pm	Seats (Total: 25) JMP 2116
DE01	Peter Chung Class time/details on ELMs	Seats (Total: 15) ONLINE

ENME712 **Measurement, Instrumentation and Data Analysis for Thermo-Fluid Processes**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

This course is designed to offer systemic coverage of the methodologies for measurement and data analysis of thermal and fluid processes at the graduate level. The course materials will cover three broad categories: (1) Fundamentals of thermal and fluid processes in single phase and multi phase flows as relates to this course; Measurement and Instrumentation techniques for measurement of basic quantities such as pressure, temperature, flow rate, heat flux, etc., and (3) Experimental Design and Planning, sources of errors in measurements, and uncertainty analysis.

0101	Ken Kiger TuTh 9:30am - 10:45am	Seats (Total: 20) EGR 1110

ENME742 **Urban Microclimate and Energy**

Credits: 3 Grading Method: Regular, Audit

Jointly offered with ENME424. Credit only granted for: ENME808I, ENME42 4 or ENME742. Formerly: ENME808I.

Examines urban microclimate from the perspective of transient heat and mass transfer using building energy simulations for building clusters. The focus is on understandingbuilding energy consumption and environmental impacts from the individual building scale (~100) to a neighborhood scale (~103). Emerging morphological properties of building clustersmodulate transient convective and radiative heat transfer resulting in different localmicroclimatic conditions. At the neighborhood scale, these conditions are analyzed using heatand mass transfer simulations in building clusters to provide boundary conditions for transient building energy simulations. At the individual building scale, besides the energy consumption,this course examines connection between indoor and outdoor environments.

0101	Jelena Srebric TuTh 12:30pm - 1:45pm	Seats (Total: 5) CSI 1122

ENME744 **Additive Manufacturing**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENME272 and ENME331; or students who have taken courses with comparable content may contact the department. Jointly offered wit h ENME416. Credit only granted for: ENME 416 OR ENME 744.

Develop a comprehensive understanding of fundamental additive manufacturing-alternatively, "three-dimensional (3D) printing-approaches, including extrusion-based deposition, stereolithography, powder bed-based melting, and inkjet-based deposition. Cultivate a "design-for-additive manufacturing" skill set for combining computer-aided design (CAD) and computer-aided manufacturing (CAM) methodologies to produce successful 3D prints. Fabricate 3D mechanical objects using a variety of 3D printing technologies on campus. Execute a design project that demonstrates how additive manufacturing technologies can overcome critical limitations of traditional manufacturing processes.

0101	Ryan Sochol MWF 1:00pm - 1:50pm	Seats (Total: 20) JMP 2121
DE01	Ryan Sochol Class time/details on ELMs	Seats (Total: 20) ONLINE

ENME799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENME808 **Advanced Topics in Mechanical Engineering**

Credits: 3 Grading Method: Regular, Audit

Contact department for information to register for this course.

ENME808E **Advanced Topics in Mechanical Engineering; Machine Learning: Theory and Applications**

Credits: 3 Grading Method: Regular, Audit

0101	Nikhil Chopra	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	CHE 2140

ENME808P **Advanced Topics in Mechanical Engineering; Control of Smart Structures**

Credits: 3 Grading Method: Regular, Audit

0101	Amr Baz	Seats (Total: 15)
	TuTh 3:30pm - 4:45pm	CSI 3117

ENME808T **Advanced Topics in Mechanical Engineering; Network Control Systems**

Credits: 3 Grading Method: Regular, Audit

0101	Yancy Diaz-Mercado	Seats (Total: 25)
	MW 3:30pm - 4:45pm	EGR 3102

ENME898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

ENME899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENPM Engineering, Professional Masters Spring 2022

ENPM601 **Analog and Digital Communication Systems**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENPM600; or students who have taken courses with comparable content may contact the department. Restriction: Permission of Maryland Applied Graduate Engineering.

Analog modulation methods including AM, DSBSC-AM, SSB, and QAM; effects of noise in analog modulation systems. Digital communication methods for the infinite bandwidth additive white Gaussian noise channel: PAM, QAM, PSK, FSK modulation; optimum receivers using the MAP principle; phase-locked loops; error probabilities. Digital communication over bandlimited channels: intersymbol interference and Nyquist's criterion, adaptive equalizers, symbol clock and carrier recovery systems, trellis coding. Spread spectrum systems: direct sequence modulation and frequency hopping.

0101	Sasan Haghani Tu 7:00pm - 9:40pm	Seats (Total: 29) JMP 2217
DE01	Sasan Haghani Class time/details on ELMs	Seats (Total: 5) ONLINE
SG01	Sasan Haghani Tu 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Sasan Haghani Tu 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM602 **Data Networks**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENEE324; or students who have taken courses with comparable content may contact the department.

Principles of network design, circuit switching and packet switching, OSI Reference Model; parity and cyclic redundancy check codes; retransmission request protocols; Markov chains and queuing models for delay analysis; multiaccess communication, local area networks, Ethernet and Token Ring standards; routing, flow control, internetworking; higher layer functions and protocols. Software tools for network simulation and performance analysis will be used.

0101	C Ravishankar W 7:00pm - 9:40pm	Seats (Total: 20) JMP 2216

DE01	C Ravishankar Class time/details on ELMs	Seats (Total: 5) ONLINE
SG01	C Ravishankar W 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	C Ravishankar W 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM610 **Digital VLSI Design**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Must have completed undergraduate courses in solid state devices and digital/analog circuit design.

VLSI design with emphasis on CMOS technology. Logic functions using CMOS switches; MOSFET characteristics; BiCMOS, dynamic logic and domino logic structures; PLA's, FPLA's, and gate arrays; layout via MAGIC, use of VHDL, IRSIM, and Spice; design rules and verification techniques; packaging techniques; chip design options: standard cells, sea-of-gates, full custom; design capture and verification tools; design of CMOS datapaths, memory, and control; possible fabrication via MOSIS.

0101	Manoj Franklin Tu 7:00pm - 9:40pm	Seats (Total: 20) JMP 2216
DE01	Manoj Franklin Class time/details on ELMs	Seats (Total: 5) ONLINE
SG01	Manoj Franklin Tu 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Manoj Franklin Tu 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM611 **Software Engineering**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Competency in one programming language; and must have completed an undergraduate software engineering course.

Software engineering concepts, methods, and practices important to both the theorist and the practitioner will be covered. The entire range of responsibilities expected of a software engineer are presented. The fundamental areas of requirements development, software design, programming languages, and testing are covered extensively. Sessions on supporting areas such as systems engineering, project management, and software estimation are also included.

SW01	Christopher Ackermann Class time/details on ELMs	Seats (Total: 25) ONLINE

ENPM612 **System and Software Requirements**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENPM611. Restriction: Permission of Maryland Applied Graduate Engineering.

Focus will be placed on the theoretical and practical aspects of requirements development. Students will recognize the place of requirements, how to work with users, requirements methods and techniques, the various requirements types, how to set requirements development schedules, requirements evolution, how to model and prototype requirements, how to evaluate and manage risk in requirements, techniques to test requirements, how to manage the requirements process, and how to write an effective requirements document.

0101	Mikael Lindvall Tu 7:00pm - 9:40pm	Seats (Total: 35) JMP 2222
SG01	Mikael Lindvall Tu 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Mikael Lindvall Tu 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SW01	Mikael Lindvall Class time/details on ELMs	Seats (Total: 5) ONLINE

ENPM614 **Software Testing & Maintenence**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENPM611. Restriction: Permission of Maryland Applied Graduate Engineering.

Aspects of software development after coding is completed will be covered. Students will understand the various levels of testing, techniques for creating test data, how to manage test cases and scenarios, testing strategies and methods, testing batch, client/server, real-time, and Internet systems, and the development of an effective test plan. Software maintenance will include the creation of easily maintained software; preventive maintenance, corrective maintenance, and enhancements; configuration management practices; and assuring quality in software manintenance.

0101	Mikael Lindvall, Anumeet Nepaul Th 7:00pm - 9:40pm	Seats (Total: 35) JMP 2216
SG01	Mikael Lindvall, Anumeet Nepaul Th 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Anumeet Nepaul, Mikael Lindvall Th 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SW01	Mikael Lindvall, Anumeet Nepaul Class time/details on ELMs	Seats (Total: 5) ONLINE

ENPM615 **Embedded Systems**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Must have completed undergraduate courses in logic design, computer architecture, and programming.

Introduction to embedded systems design and evaluation: requirements, specification, architecture, hardware and software components, integration and performance evaluation. Topics include instruction sets, CPU, embedded computing platform, program design and analysis, operating systems, hardware accelators, multiprocessors, networks, and system analysis. Real-life embedded systems design examples will be used throughput the course to illustrate these concepts.

0101	Gang Qu W 7:00pm - 9:40pm	Seats (Total: 20) KEB 1110

ENPM627 **Environmental Risk Analysis**

Credits: 3 Grading Method: Regular, Audit

Covers fundamental aspects of environmental risk analysis and methods used to perform environmental risk analyses. Topics covered in the class include: establishing the scope of an analysis, developing alternate conceptual models, representing source term release, modeling contaminant transport in environmental media (e.g., surface water, groundwater, air), modeling food chains, conducting an exposure assessment, understanding basic human toxicology, characterizing the dose-response relationship, and effectively communicating about and managing risk. This course covers fundamental aspects of designing a risk analysis as well as common pitfalls to avoid and major sources of uncertainty in environmental risk analyses.

0101	Alavanja Ridge, Karen Pinkston M 7:00pm - 9:40pm	Seats (Total: 25) JMP 2217
ME01	Karen Pinkston, Alavanja Ridge Class time/details on ELMs	Seats (Total: 10) ONLINE
SG01	Karen Pinkston, Alavanja Ridge M 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Karen Pinkston, Alavanja Ridge M 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM650 **Solar Thermal Energy Systems**

Credits: 3 Grading Method: Regular, Audit

Covers a review of related fundamentals, including limitations imposed by thermodynamics, solar spectral characteristics, measurement, and analytical models to predict solar irradiance with respect to time, location and orientation. The course will then examine the characteristics of various components in solar thermal systems with particular emphasis on flat plate and concentrating collectors, fixed and tracking collector systems, heat exchangers and thermal storage to understand how they work and how their performance is influenced by their design. The course will then lead to an examination of systems and system performance, including system design, predicted energy savings and related economics. The course will introduce low temperature applications such as solar hot water, space heating and water distillation, as well as concentrating solar energy for solar thermo-chemical processes to produce hydrogen and solar power generation systems. A project of importance to the development of Solar Thermal Power Systems will be assigned.

0101	Brian Valentine W 7:00pm - 9:40pm	Seats (Total: 25) JMP 2217
ME01	Brian Valentine Class time/details on ELMs	Seats (Total: 10) ONLINE

SG01	Brian Valentine W 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Brian Valentine W 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM651 **Heat Transfer for Modern Application**

Credits: 3 Grading Method: Regular, Audit

The applications selected will vary widely: from cooling of electronics to prevention of fog and stalagmite formation in ice rinks. Multi-mode (i.e. simultaneous conduction, convection, radiation, mass transfer) problems will be emphasized. Lectures on basic principles, followed by assignments in which students formulate solutions and explain results.

0101	Yunho Hwang Th 7:00pm - 9:40pm	Seats (Total: 15) JMP 2120
DE01	Yunho Hwang Class time/details on ELMs	Seats (Total: 5) ONLINE
SG01	Yunho Hwang Th 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Yunho Hwang Th 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM656 **Energy Conversion II -- Mobile Power**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Must have completed undergraduate courses in thermodynamics, heat transfer, and fluid mechanics; or ENPM672.

Presents the scientific and engineering basis for design, manufacture, and operation of thermal conversion technologies utilized for mobility power generation. The interface between fuel combustion chemistry and generated power are addressed. The practical aspects of design and operation of various alternatives for power are compared. The impact of choices with regard to power and fuel alternatives as well as air pollution potential are also considered.

0101	Jim Cowart Tu 4:00pm - 6:40pm	Seats (Total: 20) JMP 2216

ME01	Jim Cowart Class time/details on ELMs	Seats (Total: 10) ONLINE
SG01	Jim Cowart Tu 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA
SM01	Jim Cowart Tu 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA

ENPM661 **Planning for Autonomous Robots**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: ENPM661 or ENPM808C. Formerly: ENPM808C.

Planning is a fundamental capability needed to realize autonomous robots. Planning in the context of autonomous robots is carried out at multiple different levels. At the top level, task planning is performed to identify and sequence the tasks needed to meet mission requirements. At the next level, planning is performed to determine a sequence of motion goals that satisfy individual task goals and constraints. Finally, at the lowest level, trajectory planning is performed to determine actuator actions to realize the motion goals. Different algorithms are used to achieve planning at different levels. This graduate course will introduce planning techniques for realizing autonomous robots. In addition to covering traditional motion planning techniques, this course will emphasize the role of physics in the planning process. This course will also discuss how the planning component is integrated with control component. Mobile robots will be used as examples to illustrate the concepts during this course. However, techniques introduced in the course will be equally applicable to robot manipulators.

0101	Reza Monfaredi M 4:00pm - 6:40pm	Seats (Total: 45) JMP 2116
0201	Reza Monfaredi M 7:00pm - 9:40pm	Seats (Total: 45) JMP 2121
0301	Reza Monfaredi Tu 7:00pm - 9:40pm	Seats (Total: 45) JMP 2121
DE01	Reza Monfaredi Class time/details on ELMs	Seats (Total: 10) ONLINE
FL01	Reza Monfaredi M 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA

SG01	Reza Monfaredi M 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA
SM01	Reza Monfaredi M 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA

ENPM663 **Building a Manufacturing Robotic Software System**

Credits: 3 Grading Method: Regular, Audit

Recommended: Prior C++ or Python programming experience. Credit only granted for: ENPM809B or ENPM663. Formerly: ENPM809B.

This hands-on course will look at the components of manufacturing robots, including architectures, planning/control, simulation, and measurement science. Students will explore the work that is being researched around the world in each of these areas, and will perform small hands-on exercises in most of the classes to gain a deeper understanding of how a selected set of these technologies can be applied to real-world challenges.

0101	Craig Schlenoff, Zeid Kootbally W 4:00pm - 6:40pm	Seats (Total: 40) JMP 2116
DE01	Craig Schlenoff, Zeid Kootbally Class time/details on ELMs	Seats (Total: 5) ONLINE
FL01	Craig Schlenoff, Zeid Kootbally W 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA
SG01	Craig Schlenoff, Zeid Kootbally W 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA
SM01	Craig Schlenoff, Zeid Kootbally W 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA

ENPM664 **Embedded System Hacking and Security**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: ENPM809I or ENPM664. Formerly: ENPM809I.

The purpose of this course is to reveal the tools, techniques and procedures (TTPs) employed by adversaries to exploit and subvert the security of embedded systems. This course will cover the core concepts and techniques to analyze and characterize the behavior of embedded systems and platforms. Concepts will be introduced and discussed within the context of an adversary intent on altering or subverting the behavior of such systems. The course does not expect students to have any prior embedded systems experience.

This course requires the purchase of a kit. Information will be provided by the department when permission is requested.

0101	Gananand Kini, Robert Heinemann Tu 4:00pm - 6:40pm	Seats (Total: 21) JMP 2121
CY01	Gananand Kini, Robert Heinemann Class time/details on ELMs	Seats (Total: 9) ONLINE
SG01	Gananand Kini, Robert Heinemann Tu 4:00pm - 6:40pm	Seats (Total: 1) Location: TBA
SM01	Robert Heinemann, Gananand Kini Tu 4:00pm - 6:40pm	Seats (Total: 1) Location: TBA

ENPM671 **Advanced Mechanics of Materials**

Credits: 3 Grading Method: Regular, Audit

Formulate and quantitatively state the mechanical/physical responses of structural components and configurations subjected to loads, temperature, pre-strains etc. The two methods of anlysis employed are the mechanics of materials approach and the theory of elasticity approach. Analysis and design of components of structural/machine systems as experienced in aeronautical, civil, mechanical and nuclear engineering.

DE01	Gilad Sharon M 7:00pm - 9:40pm	Seats (Total: 30) ONLINE

ENPM672 **Fundamentals for Thermal Systems**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Undergraduate engineering, physics or chemistry degree. Restriction: Permission of Maryland Applied Graduate Engineering.

Included in this course is an introduction to thermodynamics, fluid mechanics and heat transfer. Emphasis is on gaining an understanding of the physical concepts through the solving of numerical problems associated with simple thermal fluid processes and cycles. Both ideal gases and multiphase fluids will be considered as the working fluids.

ME01	Mohammad Ali Class time/details on ELMs	Seats (Total: 10) ONLINE

ENPM673 **Perception for Autonomous Robots**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Proficiency in a programming language is required. Recommended: Familiarity with Python.

Image Processing and Computer Vision techniques for Mobile Robots is taught. Three topics are covered: Image Processing (Image Enhancement, Filtering, Advanced Edge and Texture), 3D Vision (3D Geometry from Multiple view geometry, Motion Processing and Stereo) and an Introduction to Image Segmentation and Object Recognition. Students are introduced to a number of existing software toolboxes from Vision and Robotics, and will implement a number of smaller projects in Python.

0101	Samer Charifa Tu 4:00pm - 6:40pm	Seats (Total: 45) JMP 2116
0201	Samer Charifa Tu 7:00pm - 9:40pm	Seats (Total: 45) JMP 2116
0301	Samer Charifa Tu 1:00pm - 3:40pm	Seats (Total: 45) JMP 2121
DE01	Samer Charifa Class time/details on ELMs	Seats (Total: 10) ONLINE
FL01	Samer Charifa Tu 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA
SG01	Samer Charifa Tu 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA
SM01	Samer Charifa Tu 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA

ENPM685 **Security Tools for Information Security**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Familiarity with Linux and Windows operating systems, as well as TCP/IP and basic networking concepts. Credit only granted for: ENPM808D or ENPM685. Formerly: ENPM808D.

Students will perform host- and network-based security tasks relating to security, investigation, compliance verification and auditing using a wide selection of commonly used tools on both Windows and Linux platforms, with emphasis on open source tools.

0101	Kevin Shivers W 7:00pm - 9:40pm	Seats (Total: 32) JMP 2121
0201	Bertrand Sobesto M 7:00pm - 9:40pm	Seats (Total: 52) JMP 3201
CY01	Kevin Shivers Class time/details on ELMs	Seats (Total: 20) ONLINE
SG01	Kevin Shivers W 7:00pm - 9:40pm	Seats (Total: 2) Location: TBA
SM01	Kevin Shivers W 7:00pm - 9:40pm	Seats (Total: 2) Location: TBA

ENPM686 **Information Assurance**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: ENPM808E or ENPM686. Formerly: ENPM808E.

The first half of lectures provides an overview of cybersecurity. One third of these lectures focuses on the fundamentals of cybersecurity like authentication, access control, and security models. The second third focuses on the practice of cybersecurity using Unix and Windows NT as case studies. The last third is dedicated to security in distributed systems including network security, and World Wide Web security. The second half of the lectures focuses on the information assurance process. First, information assets are enumerated and classified. Second, the main vulnerabilities and threats are identified. Third, a risk assessment is conducted by considering the probability and impact of the undesired events. Finally, a risk management plan is developed that includes countermeasures involving mitigating, eliminating, accepting, or transferring the risks, and considers prevention, detection, and response.

0101	Edward Condon M 4:00pm - 6:40pm	Seats (Total: 30) JMP 3201
0201	Robert Dean M 7:00pm - 9:40pm	Seats (Total: 17) JMP 2120
CY01	Robert Dean Class time/details on ELMs	Seats (Total: 20) ONLINE
SG01	Edward Condon M 4:00pm - 6:40pm	Seats (Total: 2) Location: TBA
SM01	Edward Condon M 4:00pm - 6:40pm	Seats (Total: 2) Location: TBA

ENPM690 **Robot Learning**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: ENPM808F or ENPM690. Formerly: ENPM808F.

Machine learning may be used to greatly expand the capabilities of robotic systems, and has been applied to a variety of robotic system functions including planning, control, and perception. Adaptation and learning are particularly important for development of autonomous robotic systems that must operate in dynamic or uncertain environments. Ultimately we would like for the robots to expand their knowledge and improve their own performance through learning while operating in the environment (on-line and/or lifelong learning). Robot Learning covers the application of learning techniques including Reinforcement Learning, Learning from Demonstration, and Robot Shaping that may be used with a variety of machine learning paradigms for which data is used to generate (through induction) models that are then used by the robot to perform tasks. A wide variety of paradigms are available to generate models (e.g., CMAC, KNN, MLP, lazy learning, LWR, RBF, deep networks). These learning techniques and paradigms are then combined with traditional robotic control approaches (e.g., motor schema, behavior-based, direct and inverse methods) to create controllers to control the robots while operating in real-world environments. This graduate course will explore the application of machine learning techniques, paradigms, and control design to robotic systems, focusing primarily on key useful representations and model building techniques for application in non-stationary robotic systems.

0101	Jerry Wu Th 7:00pm - 9:40pm	Seats (Total: 52) JMP 2121
DE01	Jerry Wu Class time/details on ELMs	Seats (Total: 5) ONLINE

FL01	Jerry Wu Th 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SG01	Jerry Wu Th 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Jerry Wu Th 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM691 **Hacking of C programs and Unix Binaries**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENEE150; or students who have taken courses with comparable content may contact the department.

Teaches the fundamentals of secure programming in C. An in depth discussion on various security vulnerabilities (e.g., buffer overflows) in C applications will be taught with hands-on demo of concepts during the class. Students will learn how a C program runs "under-the-hood". The course will teach nitty-gritty of C programs by analyzing at the assembly level. The course discusses best practices (e.g., coding standards) and design principles for secure programming so that security can be built-in during design time. In addition to assignments, students are required to present papers related to this course.

CY01	Dharmalingam Ganesan Th 7:00pm - 9:40pm	Seats (Total: 50) ONLINE

ENPM692 **Manufacturing and Automation**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: ENPM808P or ENPM692. Formerly: ENPM808P.

Covers automation and product realization, digital factories, and disruptive manufacturing technologies. The role of additive manufacturing, sustainability, and performance simulation in selected manufacturing scenarios will be explored alongside automation strategies for rapid product development.

0101	Mahesh Mani M 7:00pm - 9:40pm	Seats (Total: 35) JMP 2216
DE01	Mahesh Mani Class time/details on ELMs	Seats (Total: 10) ONLINE

FL01	Mahesh Mani M 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SG01	Mahesh Mani M 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Mahesh Mani M 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM693 **Network Security**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: An operating systems and/or network protocol course or equivalent. Formerly: ENPM808N.

Introduction to various approaches to design; specify and verify security protocols used in large systems and networks; familiarization with some current technologies. Security threats and countermeasures, communication security and basic encryption techniques, authentication protocols, data confidentiality and integrity, analysis of cryptographic protocols, and access control in large systems and networks.

0101	Majid Raissi-Dehkordi Th 4:00pm - 6:40pm	Seats (Total: 50) JMP 3201
0201	Majid Raissi-Dehkordi Th 7:00pm - 9:40pm	Seats (Total: 45) JMP 2116
CY01	Majid Raissi-Dehkordi Class time/details on ELMs	Seats (Total: 20) ONLINE
SG01	Majid Raissi-Dehkordi Th 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA
SM01	Majid Raissi-Dehkordi Th 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA

ENPM695 **Secure Operating Systems**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENPM691 and CMSC106; or permission of instructor. And permission of ENGR-CDL-Office of Advanced Engineering Education. Credit only granted for: ENPM695 or ENPM808B. Formerly: ENPM808B. Additional information: This course assumes knowledge of C programming and a previous operating systems class or knowledge in various issues such as process management, process synchronization, the critical section problem, CPU scheduling, memory management, secondary storage management.

Operating systems are the basic building block on which programmers build applications and on which security-minded professionals rely, whether they are monitoring activity on a computer, testing applications for security, or determining how malicious code affected their network. This course covers advanced topics in operating systems including process management and communication, remote procedure calls, memory management (including shared memory and virtual memory), checkpointing and recovery, file system, I/O subsystem and device management, distributed file systems and security. The course consists of reading and discussing research papers and includes a course project.

0101	Jonas Amoonarquah Tu 7:00pm - 9:40pm	Seats (Total: 30) JMP 3201
0201	Robert Williams, Jonas Amoonarquah W 7:00pm - 9:40pm	Seats (Total: 30) JMP 2222
CY01	Robert Williams, Jonas Amoonarquah Class time/details on ELMs	Seats (Total: 20) ONLINE
SG01	Jonas Amoonarquah Tu 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Jonas Amoonarquah Tu 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM696 **Reverse Software Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENPM691 and CMSC106; or permission of instructor. And permission of ENGR-CDL-Office of Advanced Engineering Education. Credit only granted for: ENPM808F or ENPM696. Formerly: ENPM808F.

An in-depth understanding of software reverse engineering concepts and hands-on training with reverse engineering tools, including disassemblers, decompilers, and code analyzers. Students will become familiar with both low-level software and the x86 instruction set through binary reversing sessions. This course also provides insights into many subjects such as system security, source code analysis, software design, and program understanding that will be beneficial in a variety of fields.

0101	Allen Hazelton Tu 4:00pm - 6:40pm	Seats (Total: 60) JMP 3201
SG01	Allen Hazelton Tu 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA
SM01	Allen Hazelton Tu 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA
SW01	Allen Hazelton Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM808 **Advanced Topics in Engineering**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

0101	George Syrmos Contact instructor or department for details.	Seats (Total: 25)

ENPM808E **Advanced Topics in Engineering; Managing Software Engineering Projects**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

0101	David Thomas W 4:00pm - 6:40pm	Seats (Total: 30) JMP 2216
SG01	David Thomas W 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA
SM01	David Thomas W 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA
SW01	David Thomas Class time/details on ELMs	Seats (Total: 5) ONLINE

ENPM808L **Advanced Topics in Engineering; Analytics for Decision Support**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

This course focuses on practical methods to extract meaningful insights from (internal and external) data sources and to communicate those findings to stakeholders. Students will use relevant tools, technologies and approaches for data manipulation, statistical analysis, predictive modeling, and visualization in case studies/projects. Students will use analytics tools and scripting languages for the implementation of projects. Some example languages/tools introduced are: Python and Tableau. Prior knowledge of scripting languages such as Python or R will be helpful - but not required.

0101	Wiehrs Collier M 7:00pm - 9:40pm	Seats (Total: 40) JMP 2116
DE01	Wiehrs Collier Class time/details on ELMs	Seats (Total: 5) ONLINE
SG01	Wiehrs Collier M 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Wiehrs Collier M 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM808R **Advanced Topics in Engineering; Machine Learning Techniques Applied to Cybersecurity**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

0101	Josef Schaff W 7:00pm - 9:40pm	Seats (Total: 40) JMP 2116
DE01	Josef Schaff Class time/details on ELMs	Seats (Total: 25) ONLINE
SG01	Josef Schaff W 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

SM01	Josef Schaff W 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM808V **Advanced Topics in Engineering; Quality Management Systems and Lean Six Sigma**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

0101	Tony Barber W 7:00pm - 9:40pm	Seats (Total: 17) JMP 2120
SG01	Tony Barber W 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Tony Barber W 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SY01	Tony Barber Class time/details on ELMs	Seats (Total: 5) ONLINE

ENPM808Y **Advanced Topics in Engineering; Fundamental Concepts of AI and Machine Learning, and Their Applications**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

0101	Massoud Moussavi Th 4:00pm - 6:40pm	Seats (Total: 30) JMP 2222
DE01	Massoud Moussavi Class time/details on ELMs	Seats (Total: 5) ONLINE
SG01	Massoud Moussavi Th 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA
SM01	Massoud Moussavi Th 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA

ENPM809C **Special Topics in Engineering; Applied Statistics**

Credits: 3 Grading Method: Regular, Audit

Special topics selected by the faculty for students in the professional master of engineering and graduate certificate in engineering program. May be taken for repeated credit when identified by topic title.

0101	Susan Mazzullo M 4:00pm - 6:40pm	Seats (Total: 25) JMP 2216
DE01	Susan Mazzullo Class time/details on ELMs	Seats (Total: 5) ONLINE
SG01	Susan Mazzullo M 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA
SM01	Susan Mazzullo M 4:00pm - 6:40pm	Seats (Total: 5) Location: TBA

ENPM809E **Special Topics in Engineering; Python Applications for Robotics**

Credits: 3 Grading Method: Regular, Audit

Special topics selected by the faculty for students in the professional master of engineering and graduate certificate in engineering program. May be taken for repeated credit when identified by topic title.

0101	Zeid Kootbally W 7:00pm - 9:40pm	Seats (Total: 60) JMP 3201
DE01	Zeid Kootbally Class time/details on ELMs	Seats (Total: 5) ONLINE
FL01	Zeid Kootbally W 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SG01	Zeid Kootbally W 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

SM01	Zeid Kootbally W 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA

ENPM809T **Special Topics in Engineering; Autonomous Robotics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Special topics selected by the faculty for students in the professional master of engineering and graduate certificate in engineering program. May be taken for repeated credit when identified by topic title.

0101	Steven Mitchell M 4:00pm - 6:40pm	Seats (Total: 9) JMP 2217
0201	Steven Mitchell Th 4:00pm - 6:40pm	Seats (Total: 14) JMP 2217
DE01	Steven Mitchell M 4:00pm - 6:40pm	Seats (Total: 2) ONLINE

ENRE Reliability Engineering Spring 2022

ENRE447 **Fundamentals of Reliability Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH141.

This course provides a general survey of the techniques of reliability engineering with a focus on quantitative methods. Topics covered include: failure modes and effects analysis, mathematical definition of reliability, probabilistic models to represent failure phenomena, statistical life models for non-repairable components, reliability data analysis, and system reliability models including fault trees, event trees. Students will learn how to apply these techniques to problems related to engineering systems, with example cases for process plants, energy systems and infrastructure.

0101	Katrina Groth M 3:30pm - 6:00pm	Seats (Total: 35) JMP 2121
ER01	Katrina Groth Class time/details on ELMs	Seats (Total: 5) ONLINE

ENRE489 **Special Topics in Reliability Engineering**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in reliability engineering.

Contact department for information to register for this course.

ENRE489G **Special Topics in Reliability Engineering; Fundamental Reliability Analysis**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in reliability engineering.

Contact department for information to register for this course.

ENRE620 **Mathematical Techniques of Reliability Engineering**

Credits: 3

Grading Method: Regular, Audit

Cross-listed with: ENNU620.

Basic probability and statistics. Application of selected mathematical techniques to the analysis and solution of reliability engineering problems. Applications of matrices, vectors, tensors, differential equations, integral transforms, and probability methods to a wide range of reliability related problems.

0101	Reuel Smith TuTh 12:30pm - 1:45pm	Seats (Total: 20) JMP 2217
ER01	Reuel Smith Class time/details on ELMs	Seats (Total: 10) ONLINE
RE01	Reuel Smith Class time/details on ELMs	Seats (Total: 5) ONLINE

ENRE640 **Collection and Analysis of Reliability Data**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: ENRE602.

Reliability data collection and analysis is of high (practical) importance in many essential engineering tasks including but not limited to: design alternatives evaluation, failure root cause analysis, early detection of field reliability problems, warranty reserve allocation, and others. The course teaches nonparametric and parametric statistical procedures of reliability data analysis for both non-repairable and repairable systems. It covers test data analysis (including accelerated and degradation testing), field data analysis (including warranty data and connected fleets data). Machine learning methods in reliability data analysis are discussed as well, along with special topics on condition-based maintenance and prognostics.

0101	Vasiliy Krivtsov F 9:00am - 11:40am	Seats (Total: 20) JMP 2222
ER01	Vasiliy Krivtsov Class time/details on ELMs	Seats (Total: 15) ONLINE
RE01	Vasiliy Krivtsov Class time/details on ELMs	Seats (Total: 5) ONLINE

ENRE648 **Special Problems in Reliability Engineering**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

For students who have definite plans for individual study of approved problems. Credit given according to extent of work.

Contact department for information to register for this course.

ENRE648H **Special Problems in Reliability Engineering; Risk Analysis for Engineering**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

For students who have definite plans for individual study of approved problems. Credit given according to extent of work.

0101	Bilal Ayyub MW 2:00pm - 3:15pm	Seats (Total: 20) CHE 2140

ENRE655 **Advanced Methods in Reliability Modeling**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENRE602. Credit only granted for: ENRE655 or ENRE665. Formerly: ENRE665.

Bayesian methods and applications, estimation of rare event frequencies, uncertainty analysis and propagation methods, reliability analysis of dynamic systems, analysis of dependent failures, reliability of repairable systems, human reliability analysis methods and theory of logic diagrams and application to systems reliability.

0101	Mohammad Modarres W 1:00pm - 3:40pm	Seats (Total: 20) JMP 2216
ER01	Mohammad Modarres Class time/details on ELMs	Seats (Total: 15) ONLINE
RE01	Mohammad Modarres Class time/details on ELMs	Seats (Total: 10) ONLINE

ENRE671 **Risk Assessment in Engineering**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENRE670. Credit only granted for: ENRE648W or ENRE671. Formerly: ENRE648W.

Introduction to risk management and decision-making, including uncertainty propagation, importance ranking, risk acceptance criteria, decision analysis and other decsion-making techniques, risk communication.

Cross-listed with ENME607. Credit granted for ENRE671 or ENME607.

0101	Jeffrey Herrmann TuTh 2:00pm - 3:15pm	Seats (Total: 30) JMP 2222
ER01	Jeffrey Herrmann Class time/details on ELMs	Seats (Total: 15) ONLINE
RE01	Jeffrey Herrmann Class time/details on ELMs	Seats (Total: 10) ONLINE

ENRE799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENRE898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

ENRE899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENSE Systems Engineering Spring 2022

ENSE622 **System Trade-off Analysis, Modeling, and Simulation**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of ENGR-Institute for Systems Research; and ENSE621. Recommended: Familiarity with calculus, probability, linear algebra, differential equations, & computer programming recommended. Credit only granted for: ENPM642 or ENSE622.

This course continues the model-based approach to systems engineering by introducing students to a variety of mathematical modeling and simulation techniques used to perform system performance, optimization, and trade-off analyses. Topics include: linear and integer programming; state machine models of finite state machines; development of simple intelligent agents; modeling Markov processes; queueing theory; multi-objective trade-off analyses; decision trees; stochastic (Monte Carlo) simulation, linear regression, some predictive analytic techniques; and an introduction to control theory. Mathematical models and simulations are developed and executed using MATLAB. The course includes a class project in which students solve a problem of interest to them using one or more of techniques addressed in class.

Cross-listed with ENPM642. Credit granted for ENSE622 or ENPM642

0101	Scott Simpkins M 7:00pm - 9:40pm	Seats (Total: 17) JMP 2222
SG01	Scott Simpkins M 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Scott Simpkins M 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SY01	Scott Simpkins M 7:00pm - 9:40pm	Seats (Total: 20) ONLINE

ENSE624 **Human Factors in Systems Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of ENGR-Institute for Systems Research. Credit only granted for: ENPM644 or ENSE624.

This course covers the general principles of human factors, or ergonomics as it is sometimes called. Human Factors (HF) is an interdisciplinary approach for dealing with issues related to people in systems. It focuses on consideration of the characteristics of human beings in the design of systems and devices of all kinds. It is concerned with the assignment of appropriate functions for humans and machines, whether the people serve as operators, maintainers, or users of the system or device. The goal of HF is to achieve compatibility in the design of interactive systems of people, machines, and environments to ensure their effectiveness, safety and ease of use.

Cross-listed with ENPM644. Credit granted for ENPM644 or ENSE624.

0101	Robert Beaton Th 7:00pm - 9:40pm	Seats (Total: 30) JMP 3201
SG01	Robert Beaton Th 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SM01	Robert Beaton Th 7:00pm - 9:40pm	Seats (Total: 5) Location: TBA
SY01	Robert Beaton Th 7:00pm - 9:40pm	Seats (Total: 10) ONLINE

ENSE699 **Directed Study in Systems Engineering**

(Perm req)

Credits: 1-3 Grading Method: Sat-Fail

Directed study in Systems Engineering.

Contact department for information to register for this course.

ENSE799 **Systems Engineering Thesis; Masters Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

The application of systems engineering concepts, principles, and theories will be applied to the Master's Thesis project. Project/thesis work will be defined and selected early in student's program and supervised by a university faculty mentor.

Contact department for information to register for this course.

ENSP Environmental Science and Policy Spring 2022

ENSP101 **Introduction to Environmental Science**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: PS | General Education: DSNS

One of two required courses that introduce students to the topics studied and methods employed in environmental science and policy. Emphasis on scientific ways of knowing; the systems, cycles, flows, and interfaces that characterize the atmosphere, lithosphere, hydrosphere, and biosphere; the analysis of human impacts on these systems; and the nature of scientific uncertainty and methods of quantifying environmental processes.

Contact department for information to register for this course.

ENSP102 **Introduction to Environmental Policy**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS

Additional information: May be taken before or after ENSP101.

Second of two courses that introduce students to the topics studied and methods employed in environmental science and policy. Emphasis on the process of formulating, implementing, and evaluating policy responses to environmental problems, with particular attention to policy controversies related to scientific uncertainty, risk assessment, the valuation of nature, and distributional equity. May be taken before or after ENSP101.

0101	Joanna Goger TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 22) SKN 0200 KEY 0116	Discussion
0102	Joanna Goger TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 22) SKN 0200 KEY 0116	Discussion
0103	Joanna Goger TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 23) SKN 0200 HBK 0123	Discussion
0104	Joanna Goger TuTh 9:30am - 10:45am Th 2:00pm - 2:50pm	Seats (Total: 22) SKN 0200 KEY 0126	Discussion
0105	Joanna Goger TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 22) SKN 0200 KEY 0120	Discussion

0106	Joanna Goger TuTh 9:30am - 10:45am Th 3:00pm - 3:50pm	Seats (Total: 22) SKN 0200 TYD 1118	Discussion
0107	Joanna Goger TuTh 9:30am - 10:45am Th 3:00pm - 3:50pm	Seats (Total: 22) SKN 0200 PLS 1168	Discussion

ENSP250 **Lawns in the Landscape: Environmental Hero or Villain?**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSNS, SCIS

Cross-listed with PLSC250. Credit only granted for: ENSP250 or PLSC250.

Examination of the lawn as an element in the anthropogenic landscape and its influence on global warming, regional air and water quality, ecological diversity, mammalian pesticide exposure and consumptive water use. Demographic and socioeconomic factors are examined in the context of being predictors of landscape aesthetic desires and lawn management behaviors. Policies that incentivize lawn alternatives or changes in lawn management behavior are discussed.

0101	Mark Carroll MW 4:00pm - 5:15pm	Seats (Total: 25) SYM 0209

ENSP306 **Fundamentals of Qualitative Research Methods for Environmental Studies**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

An introduction to research design and methods, with an in-depth focus on qualitative research methods and application to environmental studies. Topics include: writing an appropriate research question, identifying relevant methods, submitting a proposal to the Institutional Review Board, choosing appropriate sampling approaches, conducting interviews, focus groups, ethnographies, analyzing textual data, and presenting qualitative results.

0101	Caroline Boules MW 2:00pm - 3:15pm	Seats (Total: 25) EGR 0135

ENSP330 **Introduction to Environmental Law**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Recommended: ENSP101 and ENSP102. Restriction: Junior standing or higher. And must be a major in the Environmental Science and Policy program; or permission of Environmental Science and Policy program.

An overview of environmental law, from its common law roots to its role in the modern regulatory state, including an examination of major federal environment statutes and the policy debates inherent in them. Other areas covered include civil and criminal enforcement, standing to sue, land use control, and regulatory takings.

0101	Joanna Goger	Seats (Total: 35)
	TuTh 12:30pm - 1:45pm	ESJ 1215

ENSP342 **Environmental Threats to Oceans and Coasts: Towards an Integrated Policy Response**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: ENSP101 and ENSP102. Restriction: Must have earned a minimum of 60 credits. And must be a major in the Environmental Science and Policy program; or permission of Environmental Science and Policy program.

An interdisciplinary study of the challenges of maintaining the health and vitality of oceans and coasts in the face of climate change, extreme weather, and other threats including pollution, and oil and gas development. Exploration of four broad themes: resource management, conservation and stewardship, pollution, and coastal zone management. Also, an analysis of current efforts to integrate these themes through ecosystem-based management; marine spatial planning; and related policy responses.

0101	Annette Spivy	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	CSI 2117

ENSP350 **Energy Resources: Science and Policy in the 21st Century**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENSP101 and ENSP102. Restriction: Must have earned a minimum of 60 credits; and permission of AGNR-Dean-Environmental Science & Policy Program. Credit only granted for: ENST405, ENSP350, ENST605, or MEES698Z.

Energy resource production and consumption, including historical context, current trends in the U.S. and globally, and social and environmental implications. Includes fuel-source formation, history of use, modern trends in consumption, production, pricing and trade, reserves and resources, environmental and social impacts, future outlook and potential new technologies related to energy efficiency and conservation.

0101	Edward Sinnes	Seats (Total: 30)
	MW 2:00pm - 3:15pm	JMZ 1224

ENSP370 **Principles of Environmental Justice: Theory and Practice**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: ENSP101 and ENSP102. Restriction: Junior standing or higher. Must be a major in the Environmental Science and Policy program; permission of Environmental Science and Policy program.

Explores the issue of environmental justice from the social science, policy, and legal perspectives. The course will begin with a theoretical foundation of environmental justice, and the historical, social and economic roots of environmental injustices and environmental racism. We will explore the different contexts within which environmental injustice manifests itself including domestic and international examples such as injustices in the food system, climate justice, environmental privilege, and urban environmental justice and pollution. We will study the ways in which people and communities have combated environmental injustices by looking at the history of the environmental justice movement, which was created to address the increasingly disproportionate impacts of environmental harms on low income populations and communities of color.

0101	Caroline Boules, Joanna Goger	Seats (Total: 30)
	MW 11:00am - 12:15pm	ATL 1114

ENSP386 **Internship**

(Perm req)

Credits: 3-6 Grading Method: Regular

Restriction: Must have internship proposal approved by the concentration advisor, the director of ENSP and the student's internship sponsor.

Contact department for information to register for this course.

ENSP399 **Special Topics in Environmental Science and Policy**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

A substantive and specialized examination of contemporary issues in environmental science or policy.

Contact department for information to register for this course.

ENSP399R **Special Topics in Environmental Science and Policy; Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

A substantive and specialized examination of contemporary issues in environmental science or policy.

0101	Melissa Kenney, Ariana Sutton-Grier F 10:00am - 1:00pm	Seats (Total: 15) Location: TBA
0301	Instructor: TBA Contact instructor or department for details.	Seats (Total: 15)
0601	Annette Spivy Contact instructor or department for details.	Seats (Total: 10)
1001	Jennifer Mullinax Contact instructor or department for details.	Seats (Total: 10)

ENSP400 **Capstone in Environmental Science and Policy**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail CORE: CS General Education: DSSP

Prerequisite: ENSP101; and ENSP102. Restriction: Must be in Environmental Science and Policy program; and senior standing; and permission of the Environmental Science and Policy Program.

Integration of physical, biological, and social sciences with applications to environmental science and policy. Problem-solving and multi-disciplinary case study evaluations pertinent to contemporary and future issues related to the environment.

0101	Caroline Boules TuTh 3:30pm - 4:45pm	Seats (Total: 30) IRB 1207
0102	Annette Spivy TuTh 3:30pm - 4:45pm	Seats (Total: 30) IRB 2107

ENSP499 **Honors Thesis Research**

Credits: 1-6 Grading Method: Regular

Individual research, thesis, and oral defense. The research project will be conducted under the supervision of a faculty member.

Contact department for information to register for this course.

ENST Environmental Science and Technology Spring 2022

ENST100 **International Crop Production-Issues and Challenges in the 21st Century**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: LS

Credit only granted for: ENST100 or NRSC100. Formerly: NRSC100.

Examines the role of crop production in elevating humans out of poverty in developing countries. It will introduce students to the basic principles of plant and soil science underlying the international production of food crops and world food security. The role of multinational agencies such as the World Bank in the promotion of sustainable crop production using environmentally-sound technologies will also be discussed.

0101	Jose-Luis Izursa TuTh 11:00am - 12:15pm	Seats (Total: 38) ANS 0422	

ENST200 **Fundamentals of Soil Science**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: LL | General Education: DSNL

Corequisite: CHEM131 and CHEM132; or permission of AGNR-Environmental Science & Technology department. Credit only granted for: ENST200 or NRSC200. Formerly: NRSC200.

Study and management of soils as natural bodies, media for plant growth, and ecosystem components. Morphology, composition, formation, and conservation of soils. Chemical, biological, and physical properties are discussed in relation to the production of plants, the functioning of hydrologic and nutrient cycles, the protection of environmental quality, and engineering uses of soils.

0101	Eni Baballari, Maryam Foroughi TuTh 9:30am - 10:45am Tu 4:00pm - 6:50pm	Seats (Total: 20) ARC 0204 HJP 0210	 Lab
0102	Maryam Foroughi, Eni Baballari TuTh 9:30am - 10:45am W 9:00am - 11:50am	Seats (Total: 20) ARC 0204 HJP 0210	 Lab
0103	Maryam Foroughi, Eni Baballari TuTh 9:30am - 10:45am W 4:00pm - 6:50pm	Seats (Total: 20) ARC 0204 HJP 0210	 Lab

ENST214 **Introduction to Fish and Wildlife Sciences**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: IE

Prerequisite: BSCI160 and BSCI161; or permission of instructor. Restriction: Must be in the ENST Natural Resources Management or ENSP Wildlife Ecology & Management programs; and must have completed less than 90 credits; or permission of instructor.

Lectures, discussion, and readings in social, biological, and human dimension issues facing fisheries and wildlife biologists and natural resource managers in the United States. Coverage will include history and philosophical discussions of fish and wildlife sciences; conservation and management; principles of community, habitat, and animal ecology and management; and interrelations of wildlife, fish, and forestry.

0101	Shannon Browne TuTh 12:30pm - 1:45pm	Seats (Total: 30) ANS 0538	

ENST233 **Introduction to Environmental Health**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit General Education: DSNS

Examines how humans are affected by the quality of our air, water, soil and food supply as well as how human activities alter these survival necessities. Students will learn how the evolution and prosperity of human populations have resulted in degradation of our environment and the impact of environmental degradation on the health of people. The implications of individual and collective choices for sustainable food production, population management, and resource utilization will be explored.

0101	Jennifer Gunnulfsen TuTh 2:00pm - 3:15pm M 1:00pm - 1:50pm	Seats (Total: 20) ANS 0408 ANS 0422	 Discussion
0102	Jennifer Gunnulfsen TuTh 2:00pm - 3:15pm M 2:00pm - 2:50pm	Seats (Total: 20) ANS 0408 ANS 0422	 Discussion
0103	Jennifer Gunnulfsen TuTh 2:00pm - 3:15pm W 1:00pm - 1:50pm	Seats (Total: 20) ANS 0408 ANS 0422	 Discussion
0104	Jennifer Gunnulfsen TuTh 2:00pm - 3:15pm W 2:00pm - 2:50pm	Seats (Total: 20) ANS 0408 ANS 0422	 Discussion

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ENST309 **Advanced Field Soil Morphology**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

This is a field-oriented course that provides advanced training for students in the techniques used to (1) describe soil morphology, and site and profile characteristics, (2) make land use interpretations based on soil characteristics, and (3) classify soils. This class is designed to prepare students for the National Collegiate Soil Judging Contest and for students to gain experience in the description and interpretation of soils in the field. Students will be exposed to a variety of soil landscapes and geology from outside of the northeastern U.S.

Restriction: Permission of AGNR-Environmental Science and Technology department. Prerequisite: ENST301

0101	Martin Rabenhorst W 7:30am - 8:45am	Seats (Total: 15) HJP 0210

ENST334 **Environmental Toxicology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM131, CHEM132, and BSCI207; or permission of AGNR-Environmental Science & Technology department.

Concepts and case histories in ecotoxicology. Emphasis on origin and variety of environmental pollutants, routes of biological exposure, modes of toxicological action and effects on individual organisms, populations and ecosystems. Ecotoxicological issues in the Chesapeake Bay will be used as examples.

0101	Lance Yonkos TuTh 12:30pm - 1:45pm	Seats (Total: 35) ANS 0412

ENST388 **Honors Thesis Research**

Credits: 3-6 Grading Method: Regular, Pass-Fail, Audit

Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

1803	Paul Leisnham Contact instructor or department for details.	Seats (Total: 1)
2201	Martin Rabenhorst Contact instructor or department for details.	Seats (Total: 1)
2905	Stephanie Yarwood Contact instructor or department for details.	Seats (Total: 3)

3001	Lance Yonkos	Seats (Total: 1)
	Contact instructor or department for details.	

ENST389 **Internship**

(Perm req)

Credits: 3 Grading Method: Sat-Fail

Credit will be granted for practical work carried out by students placed in work environment related to their stated career goals. Students must do an in-depth study in some portion of the work experience and produce a special project or report related to this study. A student work log is also recommended. An evaluation from the external supervisor of the project will be required. Credit arranged with supervising faculty member.

0101	Jose-Luis Izursa	Seats (Total: 50)
	Contact instructor or department for details.	

ENST405 **Energy and Environment**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH140 or MATH120; or must have completed MATH220. Restriction: Junior standing or higher. And must be in Environmental Sci & Tech program; or must be in Environmental Sci & Tech: Ecological Tech Design program; or must be in Environmental Sci & Tech: Environmental Health program; or must be in Environmental Sci & Tech: Soil & Watershed Science program; or must be in Environmental Sci & Tech: Natural Resources Mgmt program. Jointly offered with ENST605. Credit only granted for: ENST405, ENSP350, ENST605, or MEES698Z.

Introduction to the role of energy in environmental and human-dominated systems. Discussion of the historical and modern production and consumption of energy. Introduction to energy systems computer simulation and energy auditing.

Jointly offered with MEES698Z. Credit granted for ENST405 or MEES698Z.

0101	David Tilley	Seats (Total: 40)
	MWF 10:00am - 10:50am	ANS 0538

ENST410 **Ecosystem Services: An Integrated Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENST360 or BSCI361; or permission of instructor. Restriction: Must be in one of the following programs (Environmental Sci & Tech: Ecological Tech Design; Environmental Sci & Tech; Environmental Sci & Tech: Natural Resources Mgmt; Environmental Sci & Tech: Soil & Watershed Science; Environmental Sci & Tech: Environmental Health).

The importance of our ecosystems and the services they provide will be discussed. Basic principles used to analyze ecosystem services will be discussed and applied using case studies & field exercises. Forestland, wetlands and our marine resources are increasingly recognized for their ecosystem services provided to society, to include clean air and water, wildlife habitat, biodiversity, carbon storage and pollination services. This course will prepare students to deal with the complex issues involved in understanding those and other ecosystem services and their importance to society and environmental sustainability. Slowly, new markets are emerging for these services. Students will analyze the ecological, policy and financial dimensions of enhancing, restoring, and sustaining ecosystem services. New and on-going government programs and private business ventures will be discussed.

0101	Mitchell Pavao-Zuckerman	Seats (Total: 40)	
	TuTh 3:30pm - 4:45pm	ANS 0422	

ENST421 **Soil Chemistry**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENST200. Credit only granted for: ENST421 or NRSC421. Formerly: NRSC421.

The chemistry and composition of mineral and organic colloids in soils, including ion exchange, oxidation-reduction, acidity, surface charge, and solution chemistry. Lectures and readings pertain to plant nutrition, waste disposal, and groundwater quality.

0101	Jared Wilmoth	Seats (Total: 14)	
	TuTh 12:30pm - 1:45pm	HJP 0210	
	Th 2:00pm - 4:50pm	HJP 0210	Lab

ENST422 **Soil Microbial Ecology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENST200; or 1 course in BCHM; or must have completed a course in microbiology; or students who have taken courses with comparable content may contact the department. Jointly offered with ENS T622. Credit only granted for: ENST422 or NRSC422. Formerly: NRS C422.

The interdisciplinary study of soil microorganisms and their interactions with the mineral matrix; resulting in processes such as nutrient cycling, decontamination, and natural product production. We will focus on the diversity of soil communities, their survival strategies, and the new strategies used to study these communities.

0101	Stephanie Yarwood	Seats (Total: 25)	
	TuTh 9:30am - 10:45am	ANS 0422	

ENST423 **Soil-Water Pollution**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM104 and ENST200. Credit only granted for: ENST423 or NRSC423.

Reaction and fate of pesticides, agricultural fertilizers, industrial and animal wastes in soil and water with emphasis on their relation to the environment.

0101	Robert Hill	Seats (Total: 35)	
	TuTh 11:00am - 12:15pm	ANS 0412	

ENST430 **Wetland Soils**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENST200. Credit only granted for: ENST430, ENST630, or NRSC461. Formerly: NRSC461.

The soils of wetlands including hydrology, chemistry, and genesis are discussed. Federal and regional guidelines for wetland soils are covered with an emphasis on validating interpretations through field observations.

0101	Martin Rabenhorst	Seats (Total: 14)	
	MW 2:00pm - 2:50pm	EGR 3102	
	M 3:00pm - 6:00pm	HJP 0210	Lab

ENST436 **Emerging Environmental Threats**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENST233; or permission of AGNR-Environmental Science & Technology department.

Examine new and potential environmental concerns in the air, water, soil, space, and the built environment. Emphasis on studying the intrinsic links between ecosystem and human health. Topics will include climate change, resource consumption, biodiversity change, infectious disease, non-traditional pollutants, and other complex and significant environmental concerns.

0101	Paul Leisnham	Seats (Total: 35)	
	MWF 11:00am - 11:50am	ANS 0422	

ENST452 **Wetland Restoration**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: (BSCI160 and BSCI161; or BSCI106); and (BSCI362, ENST450, ENST360, or BSCI361).

Design, construction, and evaluation of wetlands restored or created to provide ecosystem services or to mitigate losses due to development. Topics include fundamental properties of wetlands, ecological restoration theory, site selection and goal-setting, design plans, practices for establishing wetland hydrology, substrate, and vegetation, and restored ecosystem monitoring.

0101	Andrew Baldwin	Seats (Total: 40)	
	TuTh 2:00pm - 3:15pm	ANS 0412	

ENST462 **Field Techniques in Wildlife Management**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENST460. And BSCI160 and BSCI161; or BSCI106. And BSCI170 and BSCI171; or BSCI105. Recommended: ENST461. Restriction: Permission of AGNR-College of Agriculture & Natural Resources.

Hands-on experience with field techniques in wildlife management focusing on various methods of conducting indices, estimates, and censuses of wildlife populations. Includes capture and handling of amphibians, reptiles, birds, and mammals by use of drift fences, cover boards, mist nets, box traps, and dart guns.

0101	Shannon Browne	Seats (Total: 15)	
	F 11:00am - 11:50am	ANS 0509	
	F 1:00pm - 2:50pm	ANS 0538	Lab
	F 12:00pm - 12:50pm	ANS 0538	Discussion

ENST470 **Ideas into Impact**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: CS

Restriction: Junior or Senior standing only; Permission of AGNR-Environmental Science & Technology department.

This will be a capstone-type course based around developing proposals for projects emphasizing research, monitoring, design, restoration, managament, entrepreneurship, or other approaches to ecological or environmental questions, issues, or problems.

0101	David Tilley	Seats (Total: 40)
	M 4:00pm - 5:50pm	ANS 0538
	W 4:00pm - 4:50pm	ANS 0538

ENST472 **Capstone**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: CS | General Education: DSSP

Restriction: Must be in a major within AGNR-Environmental Science & Technology department; and permission of AGNR-Environmental Science & Technology department. Additional information: This is the pinnacle course for students majoring in ENST and is therefore recommended in one of the students' final semesters.

This capstone course focuses on professional project preparation, presentation, and critical evaluation on environmental science research. Students will develop and present original projects and critique projects presented by others.

1201	Andrew Baldwin Contact instructor or department for details.	Seats (Total: 15)
1205	William Bowerman Contact instructor or department for details.	Seats (Total: 15)
1401	Frank Coale Contact instructor or department for details.	Seats (Total: 5)
1501	Gary Felton Contact instructor or department for details.	Seats (Total: 15)
1601	Robert Hill Contact instructor or department for details.	Seats (Total: 15)
1701	Patrick Benson Contact instructor or department for details.	Seats (Total: 15)
1801	Patrick Kangas Contact instructor or department for details.	Seats (Total: 15)
1802	Stephanie Lansing Contact instructor or department for details.	Seats (Total: 15)
1803	Paul Leisnham Contact instructor or department for details.	Seats (Total: 15)
1805	Michael Kearney Contact instructor or department for details.	Seats (Total: 5)
2005	Jennifer Mullinax Contact instructor or department for details.	Seats (Total: 15)

2101	Brian Needelman Contact instructor or department for details.	Seats (Total: 7)
2104	Shannon Browne Contact instructor or department for details.	Seats (Total: 15)
2105	Wendy Peer Contact instructor or department for details.	Seats (Total: 15)
2201	Martin Rabenhorst Contact instructor or department for details.	Seats (Total: 15)
2601	David Tilley Contact instructor or department for details.	Seats (Total: 15)
2701	Raymond Weil Contact instructor or department for details.	Seats (Total: 15)
2801	Kate Tully Contact instructor or department for details.	Seats (Total: 2)
2804	Jose-Luis Izursa Contact instructor or department for details.	Seats (Total: 15)
2805	Gurpal Toor Contact instructor or department for details.	Seats (Total: 15)
2905	Stephanie Yarwood Contact instructor or department for details.	Seats (Total: 15)
3001	Lance Yonkos Contact instructor or department for details.	Seats (Total: 5)
3101	Steven Mirsky Contact instructor or department for details.	Seats (Total: 5)
3201	Peter May Contact instructor or department for details.	Seats (Total: 4)
3202	Candice Duncan Contact instructor or department for details.	Seats (Total: 5)
3301	Adel Shirmohammadi Contact instructor or department for details.	Seats (Total: 4)

3401	Jared Wilmoth	Seats (Total: 10)
	Contact instructor or department for details.	

ENST481 **Ecological Design**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: (MATH120 or MATH140; or must have completed MATH220); and (PHYS121 and CHEM131); and (BSCI361; or students who have taken courses with comparable content may contact the department). Or permission of instructor. Restriction: Permission of AGNR-Environmental Science & Technology department. Jointly offered with: MEES681. Credit only granted for: ENST481, ENST681, or MEES681.

An advanced survey course on the field of ecological design. Principles of design are illustrated with case studies from biologically-based waste treatment systems, ecosystem management and sustainable development. Concepts covered include ecology, ecological engineering, nutrient cycling, emergy, lifecycle analysis, and design process. Technologies include treatment wetlands, living machines, anaerobic digestion, rain gardens, bioswales, bioremediation, algal turf scrubbers, and green building design.

0101	Peter May	Seats (Total: 20)	
	TuTh 12:30pm - 1:45pm Tu 9:00am - 10:50am	ANS 0422 ANS 0538	Lab
0102	Peter May	Seats (Total: 20)	
	TuTh 12:30pm - 1:45pm Th 9:00am - 10:50am	ANS 0422 ANS 0538	Lab

ENST486 **Senior Professional Internship**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ENST389. Restriction: Must be in the Environmental Science and Technology program; and permission of AGNR-Environmental Science & Technology department.

Students will arrange an off-campus professional-level work experience related to Environmental Science and Technology (ENST) to develop expertise in a specific area of their ENST concentration curriculum. Classroom sessions will frame student experiences within the broader discipline of Environmental Science and Technology. This course will tie together current practices in the ENST career industry, proposal writing, critical analysis, and culminate in a final paper and presentation.

0101	Jose-Luis Izursa	Seats (Total: 40)
	F 10:00am - 1:00pm	ANS 1422

ENST489 **Research Experience**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An advanced research-based course in the field of environmental science and technology.

Contact department for information to register for this course.

ENST499 **Special Topics in Environmental Science and Technology**

(Perm req)

Credits: 1-4 Grading Method: Regular, Pass-Fail, Audit

An independent study, and/or lecture, and/or laboratory series organized to study a selected phase of Environmental Science and Technology not covered by existing courses. Credit arranged with supervising faculty member.

Contact department for information to register for this course.

ENST499Y **Special Topics in Environmental Science and Technology; College Teaching**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An independent study, and/or lecture, and/or laboratory series organized to study a selected phase of Environmental Science and Technology not covered by existing courses. Credit arranged with supervising faculty member.

1508	Reginal Harrell Contact instructor or department for details.	Seats (Total: 5)
2104	Shannon Browne Contact instructor or department for details.	Seats (Total: 4)
2106	Eni Baballari Contact instructor or department for details.	Seats (Total: 4)
2107	Jennifer Gunnulfsen Contact instructor or department for details.	Seats (Total: 4)
2701	Raymond Weil Contact instructor or department for details.	Seats (Total: 4)
2804	Jose-Luis Izursa Contact instructor or department for details.	Seats (Total: 4)

3201	Peter May Contact instructor or department for details.	Seats (Total: 4)
3202	Candice Duncan Contact instructor or department for details.	Seats (Total: 4)

ENST608 **Research Methods**

(Perm req)

Credits: 1-4

Grading Method: Regular, Audit

Development of research viewpoint by detailed study and report on crop and soil research of the Maryland Agriculture Experiment Station or review and discussion of literature on specific agricultural problems or new research techniques.

Contact department for information to register for this course.

ENST622 **Advanced Soil Microbial Ecology**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: ENST200; or 1 course in BCHM; or must have completed one course in microbiology; or students who have taken courses with comparable content may contact the department. Jointly offered with ENS T422. Credit only granted for: ENST422 or ENST622.

The interdisciplinary study of soil microorganisms and their interactions with the mineral matrix; resulting in processes such as nutrient cycling, decontamination, and natural product production. We will focus on the diversity of soil communities, their survival strategies, and the new strategies used to study these communities.The course will include an examination of current literature in this field.

0101	Stephanie Yarwood TuTh 9:30am - 10:45am	Seats (Total: 9) ANS 0422

ENST630 **Advanced Wetland Soils**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: ENST200. Credit only granted for: ENST630, ENST430, or NRSC461.

The soils of wetlands including hydrology, biogeochemistry, and pedogenesis, including a focused discussion of current literature. Federal and regional guidelines for wetland soils are covered with an emphasis on validating interpretations through field observations.

0101	Martin Rabenhorst MW 2:00pm - 2:50pm M 3:00pm - 6:00pm W 3:00pm - 3:50pm	Seats (Total: 6) EGR 3102 HJP 0210 ANS 1422	 Lab Discussion

ENST689 **Special Topics**

Credits: 3 Grading Method: Regular, Audit

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

1201	Andrew Baldwin Contact instructor or department for details.	Seats (Total: 15)
1205	William Bowerman Contact instructor or department for details.	Seats (Total: 15)
1401	Frank Coale Contact instructor or department for details.	Seats (Total: 15)
1501	Gary Felton Contact instructor or department for details.	Seats (Total: 15)
1508	Reginal Harrell Contact instructor or department for details.	Seats (Total: 15)
1601	Robert Hill Contact instructor or department for details.	Seats (Total: 15)
1801	Patrick Kangas Contact instructor or department for details.	Seats (Total: 15)
1802	Stephanie Lansing Contact instructor or department for details.	Seats (Total: 15)
1803	Paul Leisnham Contact instructor or department for details.	Seats (Total: 15)
1805	Michael Kearney Contact instructor or department for details.	Seats (Total: 15)
2001	Instructor: TBA Contact instructor or department for details.	Seats (Total: 15)

2005	Jennifer Mullinax Contact instructor or department for details.	Seats (Total: 15)
2101	Brian Needelman Contact instructor or department for details.	Seats (Total: 15)
2102	Masoud Negahban-Azar Contact instructor or department for details.	Seats (Total: 15)
2103	Mitchell Pavao-Zuckerman Contact instructor or department for details.	Seats (Total: 15)
2105	Wendy Peer Contact instructor or department for details.	Seats (Total: 15)
2201	Martin Rabenhorst Contact instructor or department for details.	Seats (Total: 15)
2601	David Tilley Contact instructor or department for details.	Seats (Total: 15)
2701	Raymond Weil Contact instructor or department for details.	Seats (Total: 15)
2805	Gurpal Toor Contact instructor or department for details.	Seats (Total: 15)
2905	Stephanie Yarwood Contact instructor or department for details.	Seats (Total: 15)
3001	Lance Yonkos Contact instructor or department for details.	Seats (Total: 15)
3201	Peter May Contact instructor or department for details.	Seats (Total: 4)

ENST689J **Special Topics; Ecosystem Services: An Integrated Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

0101	Mitchell Pavao-Zuckerman TuTh 3:30pm - 4:45pm	Seats (Total: 2) ANS 0422

ENST689K **Special Topics; Antimicrobial Resistance**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

0101	Stephanie Lansing, Rohan Tikekar Tu 2:00pm - 2:50pm	Seats (Total: 15) ONLINE

ENST689P **Special Topics; Water and Development: A Global Change**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

0101	Amro Hassanein TuTh 11:00am - 12:15pm	Seats (Total: 15) ANS 1422

ENST689U **Special Topics; Invasive Species**

Credits: 1 Grading Method: Regular, Audit

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

Invasive plants and animals reduce property values and agricultural productivity. They harm native animal and plant populations and affect the overall health of ecosystems. They also impact public utility operations and affect tourism and outdoor recreation. All told, invasive species can cost the United States as much as $120 billion EACH YEAR. This special topics seminar covers the wide variety of programs USDA's Animal and Plant Health Inspection Service uses to address harmful invasive species. Issues may include: nutria, mute swans, feral swine, brown tree snakes, and insects that are tree and forest pests.

0101	Paul Leisnham M 12:00pm - 12:50pm	Seats (Total: 20) ANS 1422

ENST702 **Environmental Science and Technology: Communication and Professional Development**

Credits: 2 Grading Method: Regular, Audit

Prerequisite: ENST602. Restriction: Must be in Environmental Science and Technology (Master's) program; or must be in Environmental Science and Technology (Doctoral) program; or permission of instructor.

Training in communication and professional development to prepare students to succeed in careers within the fields of environmental science and technology. Topics will include manuscript and technical writing, job search, communication with academic and non-academic audiences, multi-disciplinary collaboration, management (project, personnel, time), professionalism, leadership, ethics, and career opportunities. Course emphasizes practical training through facilitated discussions and critique practicums.

0101	Brian Needelman	Seats (Total: 12)	
	W 11:00am - 11:50am	ANS 1422	
	F 1:00pm - 2:50pm	ANS 1422	Discussion

ENST789 **Advances in Research**

Credits: 1-4 Grading Method: Regular, Audit

A study of recent advances in agronomy research.

Contact department for information to register for this course.

ENST798 **Graduate Seminar**

(Perm req)

Credits: 1 Grading Method: Regular

Designed to provide a venue for interactive discussion between ENST graduate students and other members of the ENST community regarding thesis/dissertation research planned or conducted as part of the students graduate program.

Restriction: Must be in one of the following programs (Environmental Science and Technology (Doctoral); Environmental Science and Technology (Master's)); or permission of AGNR-Environmental Science & Technology department.

0101	Martin Rabenhorst, Jared Wilmoth	Seats (Total: 40)
	W 12:00pm - 12:50pm	ANS 0408

ENST799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENST898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

ENST899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENTM Entomology Spring 2022

ENTM609 **Integrated Pest Management**

Credits: 4 Grading Method: Regular

A modular course with an interdisciplinary approach to the theory and practice of integrated pest management. Topics of modules, each 3-4 weeks long, vary each semester over a three year time frame, with the first module serving as a prerequisite for all other modules.

0101	Kelly Hamby	Seats (Total: 12)	
	Tu 8:00am - 10:45am	PLS 1161	
	Th 8:00am - 10:45am	PLS 1161	Lab

ENTM699M **Advanced Entomology; Tools & Techniques in Genomics Research for the Applied Bio logist-Part I**

Credits: 1 Grading Method: Regular, Audit

Credit and prerequisites to be determined by the department. First and second semesters. Studies of minor problems in morphology, physiology, taxonomy and applied entomology, with particular reference to the preparation of the student for individual research.

0101	Megan Fritz	Seats (Total: 8)
	Meets January 24, 2022 - March 18, 2022	
	W 11:00am - 1:00pm	PLS 4102

ENTM699N **Advanced Entomology; Tools & Techniques in Genomics Research for the Applied Biologist-Part II**

Credits: 1 Grading Method: Regular, Audit

Credit and prerequisites to be determined by the department. First and second semesters. Studies of minor problems in morphology, physiology, taxonomy and applied entomology, with particular reference to the preparation of the student for individual research.

0101	Megan Fritz	Seats (Total: 8)
	Meets March 21, 2022 - May 10, 2022	
	W 2:00pm - 4:00pm	PLS 4102

ENTM699P **Advanced Entomology; Biogeochemistry**

(Perm req)

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Credit and prerequisites to be determined by the department. First and second semesters. Studies of minor problems in morphology, physiology, taxonomy and applied entomology, with particular reference to the preparation of the student for individual research.

Cross-listed with PLSC689F. Credit only granted for PLSC689F or ENTM699P. This course will cover advanced concepts in biogeochemistry including element cycling in terrestrial and aquatic systems, microbial metabolism, redox chemistry, and human impacts on managed and natural systems. Students will be required to lead discussions of the primary literature, prepare presentations, and present their scientific manuscripts for review and discussion.

0101	Kate Tully, Margaret Palmer	Seats (Total: 12)
	M 10:00am - 11:30am	Location: TBA

ENTM720 **Native, Invasive, and Exotic Species**

Credits: 3 Grading Method: Regular

This course will examine introduced species impact, how invasive and exotic species spread, their impact of native species and methods of invasive species control.

PLE1	Magdalene Ngeve	Seats (Total: 8)
	Meets February 28, 2022 - May 18, 2022	
	Class time/details on ELMs	ONLINE
	Must be in the Graduate Program in Applied Entomology. All other graduate students must request permission. Contact oes@umd.edu.	

ENTM725 **IPM Practices**

Credits: 3 Grading Method: Regular

Introduction to the techniques of integrated pest management for proper pest control management. Integrated Pest Management (IPM) has been the most successful management paradigm for agriculture, forestry, and urban pest management for more than five decades. Students will learn the fundamental elements of IPM programs including recognition and monitoring of key pests, formation of decision-making guidelines, intervention tactics, and fundamentals of assessment.

PLE1	Galen Dively	Seats (Total: 8)
	Meets February 28, 2022 - May 18, 2022	
	Class time/details on ELMs	ONLINE
	Must be in the Graduate Program in Applied Entomology. All other graduate students must request permission. Contact oes@umd.edu.	

ENTM750 **Urban Pests**

Credits: 3 Grading Method: Regular

Prerequisite: none. Corequisite: none. Recommended: none. Restriction: none.

This course will focus on the impact of urban pests on our everyday lives. This course will use research-based primary-literature to examine the biology and behavior as well the ecology and economic impact of these pests. The purpose of this course is to provide students with a working knowledge of these pests in urban landscape. The class will provide the best practices for control including IPM. We will look at holistic approaches and the impact of global warming on the urban landscape.

PLE1	Jacob Ngeve	Seats (Total: 8)
	Meets February 28, 2022 - May 18, 2022	
	Class time/details on ELMs	ONLINE
	Must be in Graduate Programs in Applied Entomology. All other graduate students must request permission. Contact oes@umd.edu.	

ENTM788C **Entomological Topics; Colloquium**

Credits: 1-3 Grading Method: Regular, Audit

One lecture or one two-hour laboratory period a week for each credit hour. Lectures, group discussions or laboratory sessions on selected topics such as: aquatic insects, biological control of insects, entomological literature, forest entomology, history of entomology, insect biochemistry, insect embryology, immature insects, insect behavior, insect communication, principles of entomological research.

0101	Dwayne Joseph	Seats (Total: 45)	
	F 12:00pm - 12:50pm	PLS 1130	
	F 1:00pm - 1:50pm	PLS 4102	Discussion

ENTM799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENTM898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

ENTM899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENTS Telecommunications Spring 2022

ENTS625 **Management and Organizational Behavior in the Telecommunications Industry**

Credits: 3 Grading Method: Regular, Audit

Roles of the general manager in: determining target markets and designing strategies for them; formulating and implementing corporate and business level strategies; and staffing, developing, and managing human resources and coordinating them with the organization's financial and physical resources. Also emphasizes the building of interpersonal skills with respect to the selection of members for work teams and team formation, leadership of teams toward the achievement of strategic goals and total quality, the development and motivation of team members, and the evaluation of team and individual performance.

Restricted to ENTS majors. All non-majors will need to obtain department permission.

0101	Clarence Wesley	Seats (Total: 40)	
	M 5:30pm - 8:15pm	SQH 1101	

ENTS632 **Telecommunications Marketing Management**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in Telecommunications (Master's) program.

Topics covered include strategic marketing, sales and customer service challenges confronting organizations in the computer, communications and media industries. The course also addresses volatile technology, regulatory and competitive environments as a backdrop to strategic planning and management in the marketing domain.

Restricted to ENTS majors. All non-majors will need to obtain department permission.

0101	Henry Boyd	Seats (Total: 40)
	W 2:00pm - 4:45pm	JMZ 0125

ENTS641 Networks and Protocols II

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENTS640. Restriction: Must be in Telecommunications (Master's) program.

Techniques for the specification, design, analysis, verification and testing of communication protocols are discussed. The course includes detailed discussion on routing protocols in the Internet. This includes Routing Information Protocol (RIP), Enchanced Interior Gateway Routing Protocol (EIGRP). Open Shortest Path First (OSPF), and Border Gateway Protocol (BGP4).

0101	Mehdi Kalantari Khandani	Seats (Total: 40)
	Th 5:30pm - 8:15pm	CHE 2118

ENTS656 Introduction to Cellular Communication Networks

Credits: 3 Grading Method: Regular, Audit

Concepts and techniques involved in wireless digital communications with emphasis on cellular and PCS systems. Properties of Mobile radio channels; intersymbol interference, multipath, and fading effects; interleaving and diversity; multiple access schemes (TDMA, FDMA, CDMA); interuser interference, traffic issues, and cell capacity; power control strategies; frequency reuse and channel assignment; handoff, paging, and location update; cell layout; introduction to cellular and PCS standards.

Restricted to ENTS majors.

0101	Michael Dellomo	Seats (Total: 24)	
	Tu 5:30pm - 8:15pm	JMP 1109	
	W 5:30pm - 8:15pm	AVW 1458	Lab

ENTS669J Special Topics in Computing; Internet of Things Lab

Credits: 3 Grading Method: Regular, Audit

Selected topics of current importance in computing.

Prerequisites: For ENTS Program students only

0101	Michael Dellomo Th 2:00pm - 4:45pm	Seats (Total: 18) AVW 1334

ENTS689F **Special Topics in Telecommunications; Fundamentals of Wireless LANs**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Selected topics of current importance in telecommunications.

Prerequisites: For ENTS Program students only. Click here for more course information. https://telecom.umd.edu/courses/#ENTS689F

0101	Rikin Thakker F 5:30pm - 8:15pm	Seats (Total: 30) AJC 2121

ENTS699C **Independent Study in Telecommunications; Advanced Embedded Signal Processing**

(Perm req)

Credits: 3 Grading Method: Regular

Individual instruction course. See ENTS program office for section number.

Prerequisite: Permission of ENTS program only. Students work on an Embedded Signal Processing research project under the supervision of the instructor.

0101	Shuvra Bhattacharyya Contact instructor or department for details.	Seats (Total: 1)

ENTS699M **Independent Study in Telecommunications; Python Programming**

Credits: 1 Grading Method: Regular, Audit

Individual instruction course. See ENTS program office for section number.

0101	Michael Dellomo Contact instructor or department for details.	Seats (Total: 10)

ENTS749E **Advanced Topics in Networking; Network Automation**

Credits: 3 Grading Method: Regular, Audit

Selected advanced topics in networking.

0101	Zoltan Safar	Seats (Total: 18)
	W 9:00am - 11:45am	AVW 1442

ENTS759G **Advanced Topics in Communications; Radio Access Technologies, Networks and System Design**

Credits: 3 Grading Method: Regular

Selected advanced topics in communications.

0101	Kamran Etemad	Seats (Total: 24)
	M 1:00pm - 3:45pm	WDS 0104

EPIB Epidemiology and Biostatistics Spring 2022

EPIB300 **Biostatistics for Public Health Practice**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSAR

Prerequisite: Minimum grade of C- in CHEM131 and CHEM132. Restriction: Must be in Public Health Science program; and must have earned a minimum of 60 credits. Credit only granted for: EPIB300, EPIB315 or HLTH300.

An examination of biostatistical concepts and procedures as they relate to contemporary issues in public health. Focus on applications, hands-on-experience, and interpretations of statistical findings in public health research.

As agreed to during change of major workshop or orientation to PHSC : - PHSC students who declared their major BEFORE the spring 2018 semester are required to take EPIB300 before EPIB301. - PHSC students who declared their major DURING the spring 2018 semester and later are required to take EPIB301 before EPIB315.

0101	Rodman Turpin	Seats (Total: 20)	
	TuTh 11:00am - 11:50am	SKN 0200	
	M 8:00am - 9:50am	SPH 0116B	Lab
	Restricted to College Park students in the Public Health Science major (code: 12140).		

0102	Rodman Turpin TuTh 11:00am - 11:50am M 10:00am - 11:50am	Seats (Total: 20) SKN 0200 SPH 0116B	 Lab
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0103	Rodman Turpin TuTh 11:00am - 11:50am M 12:00pm - 1:50pm	Seats (Total: 20) SKN 0200 SPH 0116B	 Lab
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0104	Rodman Turpin TuTh 11:00am - 11:50am M 2:00pm - 3:50pm	Seats (Total: 20) SKN 0200 SPH 0116B	 Lab
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0105	Rodman Turpin TuTh 11:00am - 11:50am F 8:00am - 9:50am	Seats (Total: 20) SKN 0200 SPH 0116B	 Lab
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0106	Rodman Turpin TuTh 11:00am - 11:50am F 10:00am - 11:50am	Seats (Total: 20) SKN 0200 SPH 0116B	 Lab
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0107	Rodman Turpin TuTh 11:00am - 11:50am F 12:00pm - 1:50pm	Seats (Total: 20) SKN 0200 SPH 0116B	 Lab
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0108	Rodman Turpin TuTh 11:00am - 11:50am F 2:00pm - 3:50pm	Seats (Total: 20) SKN 0200 SPH 0116B	 Lab
	Restricted to College Park students in the Public Health Science major (code: 12140).		

EPIB301 **Epidemiology for Public Health Practice**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Must be in Public Health Science program; or must be in Community Health program. And must have earned a minimum of 45 credits. Cross-listed with: HLTH301. Credit only granted for: EPIB301 or HLTH301.

An examination of the discipline of epidemiology and its application to public health issues and practices, covering current epidemiological concepts and methods.

As agreed to during your change of major workshop or orientation to PHSC: - PHSC students who declared their major BEFORE the spring 2018 semester are required to take EPIB300 before EPIB301. - PHSC students who declared their major DURING the spring 2018 semester and later are required to take EPIB301 before EPIB315.

0101	Typhanye Dyer	Seats (Total: 23)	
	TuTh 2:00pm - 2:50pm M 9:00am - 9:50am	ESJ 0202 ATL 0201	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0102	Typhanye Dyer	Seats (Total: 23)	
	TuTh 2:00pm - 2:50pm M 10:00am - 10:50am	ESJ 0202 ATL 0201	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0103	Typhanye Dyer	Seats (Total: 23)	
	TuTh 2:00pm - 2:50pm M 11:00am - 11:50am	ESJ 0202 ATL 0201	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0104	Typhanye Dyer	Seats (Total: 23)	
	TuTh 2:00pm - 2:50pm M 12:00pm - 12:50pm	ESJ 0202 ATL 0201	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0105	Typhanye Dyer	Seats (Total: 23)	
	TuTh 2:00pm - 2:50pm M 1:00pm - 1:50pm	ESJ 0202 ATL 0201	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0106	Typhanye Dyer	Seats (Total: 23)	
	TuTh 2:00pm - 2:50pm M 2:00pm - 2:50pm	ESJ 0202 ATL 2316	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		

0107	Typhanye Dyer TuTh 2:00pm - 2:50pm M 3:00pm - 3:50pm	Seats (Total: 23) ESJ 0202 ATL 2316	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0108	Typhanye Dyer TuTh 2:00pm - 2:50pm M 1:00pm - 1:50pm	Seats (Total: 23) ESJ 0202 SPH 0121	Discussion
0109	Typhanye Dyer TuTh 2:00pm - 2:50pm W 3:00pm - 3:50pm	Seats (Total: 23) ESJ 0202 SPH 0121	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0201	Typhanye Dyer TuTh 2:00pm - 2:50pm M 10:00am - 10:50am	Seats (Total: 20) ESJ 0202 SPH 0121	Discussion
	Restricted to students in the Behavioral and Community Health major.		
0202	Typhanye Dyer TuTh 2:00pm - 2:50pm W 3:00pm - 3:50pm	Seats (Total: 20) ESJ 0202 ATL 1106	Discussion
	Restricted to students in the Behavioral and Community Health major.		
ESG1	Jamie Trevitt W 11:00am - 1:00pm Class time/details on ELMs	Seats (Total: 35) BLD3 3230 ONLINE	
	Restricted to Shady Grove students in the Public Health Science major.		

EPIB315 **Biostatistics for Public Health Practice**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSAR

Prerequisite: Minimum grade of C- in EPIB301; or must have completed or be concurrently enrolled in HLTH200. Restriction: Must be in one of the following programs (Public Health Science; Community Health). Cross-listed with: HLTH300. Credit only granted for: EPIB300, EPIB315 or HLTH300. Formerly: EPIB300. Additional information: Course is cross-listed; students should check program advising information to determine which counts for their major. Note that EPIB300 (old number) is still offered for students under previous curriculum.

An examination of biostatistical concepts and procedures as they relate to contemporary issues in public health. Focus on applications, hands-on-experience, and interpretations of statistical findings in public health research.

As agreed to during your change of major workshop or orientation to PHSC: - PHSC students who declared their major BEFORE the spring 2018 semester are required to take EPIB300 before EPIB301. - PHSC students who declared their major DURING the spring 2018 semester and later are required to take EPIB301 before EPIB315.

0101	Rodman Turpin	Seats (Total: 20)	
	TuTh 11:00am - 11:50am M 8:00am - 9:50am	SKN 0200 SPH 0116B	Lab
	Restricted to College Park students in the Public Health Science major.		
0102	Rodman Turpin	Seats (Total: 20)	
	TuTh 11:00am - 11:50am M 10:00am - 11:50am	SKN 0200 SPH 0116B	Lab
	Restricted to College Park students in the Public Health Science major.		
0103	Rodman Turpin	Seats (Total: 20)	
	TuTh 11:00am - 11:50am M 12:00pm - 1:50pm	SKN 0200 SPH 0116B	Lab
	Restricted to College Park students in the Public Health Science major.		
0104	Rodman Turpin	Seats (Total: 20)	
	TuTh 11:00am - 11:50am M 2:00pm - 3:50pm	SKN 0200 SPH 0116B	Lab
	Restricted to College Park students in the Public Health Science major.		
0105	Rodman Turpin	Seats (Total: 20)	
	TuTh 11:00am - 11:50am F 8:00am - 9:50am	SKN 0200 SPH 0116B	Lab
	Restricted to College Park students in the Public Health Science major.		
0106	Rodman Turpin	Seats (Total: 20)	
	TuTh 11:00am - 11:50am F 10:00am - 11:50am	SKN 0200 SPH 0116B	Lab
	Restricted to College Park students in the Public Health Science major.		

0107	Rodman Turpin	Seats (Total: 20)	
	TuTh 11:00am - 11:50am F 12:00pm - 1:50pm	SKN 0200 SPH 0116B	Lab
	Restricted to College Park students in the Public Health Science major.		
0108	Rodman Turpin	Seats (Total: 20)	
	TuTh 11:00am - 11:50am F 2:00pm - 3:50pm	SKN 0200 SPH 0116B	Lab
	Restricted to College Park students in the Public Health Science major.		
0201	Rodman Turpin	Seats (Total: 20)	
	TuTh 11:00am - 11:50am M 4:00pm - 5:50pm	SKN 0200 SPH 0116B	Lab
	Restricted to students in the Behavioral and Community Health major.		
0202	Rodman Turpin	Seats (Total: 20)	
	TuTh 11:00am - 11:50am F 12:00pm - 1:50pm	SKN 0200 SPH 0121	Lab
	Restricted to students in the Behavioral and Community Health major.		

EPIB330 **Introduction to Infectious Disease Epidemiology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: EPIB301.

Introduces students to the study of infectious disease through the application of epidemiologic methods. Students will review how infectious diseases impact global health, and examine epidemiological concepts related to infectious disease. These concepts include infectious disease transmission, prevention and control; study design; and outbreak and epidemic investigations. Infectious disease topics of concern to public health professionals will be covered including the COVID-19 pandemic, sexually transmitted infections, foodborne infections, healthcare-acquired infections and neglected tropical diseases, and future trends in the field of infectious diseases.

0101	Steven Ault	Seats (Total: 24)	
	TuTh 2:00pm - 3:15pm	SPH 0227	

EPIB399 **Epidemiology and Biostatistics Independent Study**

Credits: 1-3 Grading Method: Regular

The EPIB undergraduate independent study is an opportunity for undergraduates from other departments in the SPH or the university to work with an Epidemiology and Biostatistics faculty member on research or special projects that are based out of EPIB.

Contact department for information to register for this course.

EPIB463 **Introduction to Biostatistical Programming**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An introduction to basic programming principles; data analysis tasks such as the calculation of summary statistics and the creation of graphs; and the implementation of statistical analysis concepts such as T-tests, ANOVA and correlation. Querying and managing data sets using SQL in SAS will also be covered.

0101	Raul Cruz-Cano	Seats (Total: 25)
	TuTh 9:30am - 10:45am	CCC 1105
	Restricted to College Park students in the Public Health Science major (code: 12140).	

EPIB611 **Intermediate Epidemiology**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: 1 course with a minimum grade of B- from (SPHL602, EPIB610); or a minimum score of 70% on the SPHL602 or EPIB610 waiver exam.

Analysis of epidemiologic methods as applied to epidemiologic research, analysis of bias, confounding, effect modification issues, overview of design, implementation, and analysis of epidemiologic studies.

0101	Cher Dallal	Seats (Total: 20)
	Th 4:00pm - 6:45pm	SPH 0227

EPIB637 **Social Epidemiologic Methods in Health Equity Research**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: SPHL602 or permission of instructor.

Provides students with the knowledge and skills to design and implement social epidemiology studies related to investigating health inequities. Presents an overview of drivers of health inequities (e.g., racism, socioeconomic status) and conceptual and methodological challenges in empirically investigating these social determinants of health including issues related to confounding, selection bias, measurement error, and evaluation of mechanisms. Covers methodological approaches that can be used to address these challenges including instrumental variable analyses, difference-in-differences, mediation analyses using inverse odds ratio weighting, and qualitative analyses. This knowledge will be applied to exploring research questions of your choice. The course will foster a co-learning environment and recognize the value and strength of interdisciplinary perspectives. Curiosity and critical thinking are encouraged and supported.

0101	Thu Nguyen Th 1:00pm - 3:45pm	Seats (Total: 20) SPH 0116A

EPIB651 **Applied Regression Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: 1 course with a minimum grade of B- from (SPHL602, EPIB650); or a minimum score of 70% on the SPHL602 or EPIB650 waiver exam. Recommended: EPIB697 or previous experience working with SAS is highly recommended.

An introduction to important statistical methods used in public health research, including nonparametric hypothesis testing, ANOVA, simple and multiple linear regression, logistic regression, and categorical data analysis.

0101	Xin He Tu 4:00pm - 6:45pm	Seats (Total: 20) SPH 0227

EPIB653 **Applied Survival Data Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: EPIB651.

Overview of statistical methods for anlayzing censored survival data, including the Kaplan-Meier estimator, the log-rank test, Cox PH model.

0101	Mei-Ling Lee W 1:00pm - 3:45pm	Seats (Total: 20) SPH 0227

EPIB664 **Missing Data Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Recommended: Previous experience with at least one statistical software (e.g. SAS, R, STATA).

Missing data is a common problem in almost all scientific fields. Students will learn the different patterns and mechanisms of missing data, common procedures to handle missingness including weighting procedure, imputation-based procedure and model-based procedure. Useful and popular imputation methods and tools will be introduced. Numerous real data examples will be included to help students understand and solve the real world problem with missing data for different study designs.

0101	Tianzhou Ma	Seats (Total: 20)
	M 1:00pm - 3:45pm	SPH 0227

EPIB778 **Internship in Public Health**

(Perm req)

Credits: 1-4 Grading Method: Regular

Internship and seminar providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the internship will depend upon the student's background and career goals.

Contact department for information to register for this course.

EPIB786 **Capstone Project in Public Health**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of SPHL-Epidemiology & Biostatistics department.

Capstone experience providing opportunity to apply knowledge and skills to a specific public health problem or issue. Completion of project relevant to public health under the direction of an advisor.

Contact department for information to register for this course.

EPIB798 **Independent Study**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Master or doctoral students who desire to pursue special research problems under the direction of a faculty memeber of the department may register for 1-6 hours of credit under this number.

Contact department for information to register for this course.

EPIB799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

EPIB898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

EPIB899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

FGSM Federal and Global Fellows Spring 2022

FGSM398 **Federal and Global Experiential Learning**

Credits: 3-9 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

This is the experiential course component of the Federal Fellows Program and Global Fellows Program.

0101	Joan Burton, Naz Beyranvand, Jayakumar Arasan M 6:30pm - 7:40pm	Seats (Total: 75) TYD 1102
0201	Naz Beyranvand, Joan Burton, Jayakumar Arasan Th 6:30pm - 7:40pm	Seats (Total: 75) TWS 1310

FIRE First-Year Innovation & Research Experience Spring 2022

FIRE198 **FIRE SEMESTER 2**

Credits: 2 Grading Method: Regular, Pass-Fail

This is the second course in the FIRE (First-Year Innovation & Research Experience) program sequence.Students in this course join a research stream and gain discipline-specific training in that lab. This course focuses on the concepts related to the process of independent research including collaboration with peers, communication of ideas, troubleshooting unexpected outcomes, and discipline-specific methodologies.

FIRE students interested in joining a stream must enroll in that stream's corresponding section of FIRE198.

0101	Catherine Spirito Th 3:30pm - 4:20pm Contact instructor or department for details. *Molecular Diagnostics*	Seats (Total: 36) ATL 2339
0102	Ian Page, Carolina Vieira W 12:00pm - 12:50pm Contact instructor or department for details. *Found in Translation*	Seats (Total: 26) ATL 2339
0103	Cherisse Hall Th 2:00pm - 2:50pm Contact instructor or department for details. *Bacterial Pathogenesis*	Seats (Total: 36) ATL 2339
0104	Jessica O'Hara W 11:00am - 11:50am Contact instructor or department for details. *Host-Pathogen Interactions*	Seats (Total: 36) ATL 2339
0105	Quira Zeidan W 10:00am - 10:50am Contact instructor or department for details. *CellEx*	Seats (Total: 36) ATL 2339
0106	Halli Weiner Th 12:30pm - 1:20pm Contact instructor or department for details. *Fertility Science*	Seats (Total: 36) ATL 2339
0201	Thanicha Ruangmas Tu 11:00am - 11:50am Contact instructor or department for details. *Sustainability Analytics*	Seats (Total: 36) ATL 2339
0202	Laura Drew Tu 12:30pm - 1:20pm Contact instructor or department for details. *Risk, Justice & Public Health*	Seats (Total: 36) ATL 2339

0203	Cristina Risco W 3:00pm - 3:50pm Contact instructor or department for details. *Addiction Science*	Seats (Total: 36) ATL 2339
0204	Sharon Colvin Th 11:00am - 11:50am Contact instructor or department for details. *Identity Science*	Seats (Total: 36) ATL 2339
0205	Benjamin Huffman Th 9:30am - 10:20am Contact instructor or department for details. *Global Development & Design*	Seats (Total: 36) ATL 2339
0301	Nitin Sanket Tu 3:30pm - 4:20pm Contact instructor or department for details. *Autonomous Unmanned Systems*	Seats (Total: 40) ATL 2339
0302	Danielle Niu W 4:00pm - 4:50pm Contact instructor or department for details. *Project Greenhouse*	Seats (Total: 38) ATL 2339
0303	Raymond H Tu W 2:00pm - 2:50pm Contact instructor or department for details. *Capital One Machine Learning*	Seats (Total: 40) ATL 2339
0304	Muge Karagoz Tu 2:00pm - 2:50pm Contact instructor or department for details. *Simulating Particle Detection*	Seats (Total: 38) ATL 2339
0305	Alexandra Jones W 1:00pm - 1:50pm Contact instructor or department for details. *Cloud Computing*	Seats (Total: 24) ATL 2339

FIRE398 FIRE Research Leadership

Credits: 1-3

Grading Method: Regular, Pass-Fail

Earn academic credit for the time spent supporting, mentoring, and leading students in FIRE Research streams.

0101	Catherine Spirito Class time/details on ELMs Class time/details on ELMs	Seats (Total: 15) ONLINE ONLINE
0102	Carolina Vieira, Ian Page Class time/details on ELMs Class time/details on ELMs	Seats (Total: 15) ONLINE ONLINE
0103	Cherisse Hall Class time/details on ELMs Class time/details on ELMs	Seats (Total: 15) ONLINE ONLINE
0104	Jessica O'Hara Class time/details on ELMs Class time/details on ELMs	Seats (Total: 15) ONLINE ONLINE
0105	Quira Zeidan Class time/details on ELMs Class time/details on ELMs	Seats (Total: 15) ONLINE ONLINE
0106	Halli Weiner Class time/details on ELMs Class time/details on ELMs	Seats (Total: 15) ONLINE ONLINE
0201	Thanicha Ruangmas Class time/details on ELMs Class time/details on ELMs	Seats (Total: 15) ONLINE ONLINE
0202	Laura Drew Class time/details on ELMs Class time/details on ELMs	Seats (Total: 15) ONLINE ONLINE
0203	Cristina Risco Class time/details on ELMs Class time/details on ELMs	Seats (Total: 15) ONLINE ONLINE

0204	Sharon Colvin	Seats (Total: 15)
	Class time/details on ELMs Class time/details on ELMs	ONLINE ONLINE
0205	Benjamin Huffman	Seats (Total: 15)
	Class time/details on ELMs Class time/details on ELMs	ONLINE ONLINE
0301	Nitin Sanket	Seats (Total: 15)
	Class time/details on ELMs Class time/details on ELMs	ONLINE ONLINE
0302	Danielle Niu	Seats (Total: 15)
	Class time/details on ELMs Class time/details on ELMs	ONLINE ONLINE
0303	Raymond H Tu	Seats (Total: 15)
	Class time/details on ELMs Class time/details on ELMs	ONLINE ONLINE
0304	Muge Karagoz	Seats (Total: 15)
	Class time/details on ELMs Class time/details on ELMs	ONLINE ONLINE
0305	Alexandra Jones	Seats (Total: 15)
	Class time/details on ELMs Class time/details on ELMs	ONLINE ONLINE

FMSC Family Science Spring 2022

FMSC110 **Families and Global Health**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, DVCC

Students will explore, define, and study global health, social determinants of health, health inequalities, gender inequality, family violence, and maternal and child health using a global perspective.

0101	Sahra Ibrahimi	Seats (Total: 45)
	TuTh 12:30pm - 1:45pm	HBK 0115

FMSC190 **Man Up! Where Are The Fathers?**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, SCIS

An examination of changing fatherhood roles, health, and inequality in diverse families. Focus will be on masculinities and disparities among men by race and class; provider role expectations; and trauma and violence faced by men in contemporary society.

0101	Kevin Roy	Seats (Total: 40)
	MWF 10:00am - 10:50am	CCC 1205

FMSC215 **Foster Care and Adoption; Law, Policy, and Family**

Credits: 1 | Grading Method: Regular, Pass-Fail

Additional information: This is a UMD STICs course, a Student Initiated Course, which was approved by the STICs program in the fall of 2020 and we are now applying for VPAC course approval to pilot the course.

In this Student Initiated Course, students will examine what it means to grow up in the foster care system or to be an adopted member of a family. We will ask questions such as how this impacts mental health and later life outcomes. Your student instructor and faculty advisor will help you explore and critically think about issues surrounding these types of blended families, and the systems that surround them, in Maryland, nationally, and internationally. Students will examine and challenge the topics' laws and policies, including issues on LGBTQ, religious, and trans-racial adoption and the socioeconomic impacts of these systems on families. Students will examine their preconceived notions and contrast them with how these systems impact families. The class welcomes various guest speakers. Classes and activities will be discussion-based, allowing students to explore issues from ethical consideration and for possible life paths.

0101	Kerry Tripp	Seats (Total: 30)
	Tu 10:00am - 10:50am	PHY 1402

FMSC260 **Couple Relationships**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS

Covers the different aspects of couple relationships and family life. This includes common problems in couple relationships, and resources to strengthen couple and family relationships. You will also learn about stages of relationships, theories of love and family, policy related to couples and family formation, and how research is conducted with couples and families. Together, we will discuss and explore issues that couples and families face in modern times and will consider how many of these issues have changed due to policy, technology, attitudes, and a variety of other societal factors that impact relationships in the 21st century. You will also learn important methods of strengthening current and future relationships.

Restricted to majors or non-majors with less than or equal to 60 credits.

0201	Zachary Berman	Seats (Total: 50)
	TuTh 11:00am - 12:15pm	HBK 0115

FMSC265 **Teaching Menstrual Health: Dispelling Myths and Misconceptions**

Credits: 3 Grading Method: Regular, Pass-Fail

Provides a platform to teach UMD undergraduate students and BHU Bachelor of Education students about the intersections of gender, culture, and health. We will explore how menstruation is addressed in different cultures and uncover myths and misconceptions that impact individuals, their families and communities. Furthermore, the course emphasizes the health cost (physical and mental) of not educating youth about this vital process and discusses the need for an intervention. The course provides essential skills to participating students for the development of an intervention. Key concepts include: theoretical understanding of menstrual health and its impact on girls and women's lives from cross cultural perspectives, the importance of deconstructing myths and misconceptions and the importance of educating both girls and boys; cultural taboos and patriarchal power relations that contribute to myths, misconceptions and practices; public health interventions addressing the cost of ignoring adolescent health issues including menstrual health; the impact of providing agency to young girls and boys to challenge the status-quo; and links between knowledge about menstruation, human rights, gender equality and the SDGs.

This is a Global Classrooms course, developed in partnership with the Office of International Affairs (OIA) to provide virtual opportunities for global engagement. Global Classrooms can range from embedded experiences to immersive, project-based collaboration.

Click here to learn more about Global Classrooms.

0101	Elisabeth Maring	Seats (Total: 18)
	MW 8:00am - 9:15am Class time/details on ELMs	HJP 3120 ONLINE

FMSC270 **Sex, Drugs, and Social Media: Adolescent Health and Development**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This course will ask: How can families, schools, communities, and society help adolescents to navigate contemporary stressors and develop into physically and mentally healthy adults? To do this, we will use research, and an understanding of adolescent development, to explore and analyze issues affecting the health and behavior of American adolescents. Such issues include (but are not limited to) sex education, the role of social media in mental health, substance use, policing in schools, dating violence, suicide prevention, access to sexual and reproductive health care, and school start times. We will consider how adolescent well-being is shaped by social contexts, including the role of parents and family members, peers, schools, communities, social media, and culture. We will examine policies and programs that affect adolescents, how effective they are at promoting adolescent health, and how they might be improved to better support healthy adolescent development.

0101	Amy Lewin MW 9:00am - 10:15am	Seats (Total: 30) CCC 1111

FMSC290 **Family Economics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: FMSC290 or FMST290. Formerly: FMST290.

Application of economic methodology to study families under various economic situations. Examination of how decisions about marriage, divorce, fertility, consumption and time use are influenced by labor/housing markets, tax structure, social welfare benefits and other economic considerations.

Restricted to majors or non-majors with less than or equal to 60 credits.

0101	Manouchehr Mokhtari TuTh 4:00pm - 5:15pm Class time/details on ELMs	Seats (Total: 50) PLS 1140 ONLINE

FMSC302 **Research Methods in Family Science**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, DSSP

Prerequisite: Must have completed an introductory statistics course. Restriction: Must be in a major within SPHL-Family Science department. Credit only granted for: FMSC302 or FMST302. Formerly: FMST302.

Introduction to the methods of the social and behavioral sciences employed in family science. The role of theory, the development of hypotheses, measurement, design, and data analysis.

0101	Deborah Shelef TuTh 9:30am - 10:45am	Seats (Total: 70) ESJ 0215

FMSC310 **Maternal, Child and Family Health**

Credits: 3 | Grading Method: Regular, Pass-Fail

Credit only granted for: FMSC310, FMSC410 or FMSC498A. Formerly: FMSC498A and FMSC410. Additional information: A comprehensive understanding of maternal, child, and family health, with additional emphasis on environmental health, needs assessment and evaluation, enabling students to more effectively address issues in the workplace.

Overview of the major issues in Maternal, Child, and Family Health in the U.S. and the world. The course will cover the social, political, environmental, and economic factors that shape the health of women, children, and families throughout the life course. It will employ the core disciplines of public health -- 1) epidemiology/biostatistics, 2) environmental health, 3) health policy and administration, and 4) social and behavioral health -- to examine these factors. The course introduces specific issues and interventions and places these issues and interventions within their broad sociohistorical context.

0101	Julia Steinberg Th 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 40) HBK 0302H ONLINE
0201	Edmond Shenassa TuTh 11:00am - 12:15pm	Seats (Total: 40) PLS 1119
0301	Jessica Gleason MW 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 40) ONLINE ONLINE

FMSC330 **Family Theories and Patterns**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DVUP

Restriction: Junior standing or higher.

The objective of this gateway course is to help you understand and apply basic theories and empirical data on family health. The course is designed to provide you with skills to think critically about theories including: Life Course Theory, the Bio-Ecological and Social-Ecological Models, and Systems Theory. We will ask questions about the distinct qualities and intersections of contexts and characteristics that impact the functioning of families. We will apply theory and research to topical issues in family health that are impacted by social structures such as conflict, crisis, migration, incarceration and inequalities.

0201	Tanner Kilpatrick MWF 9:00am - 9:50am	Seats (Total: 60) ATL 1113

0301	Laura Golojuch TuTh 12:30pm - 1:45pm	Seats (Total: 60) ONLINE

FMSC332 **Children in Families**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS

Prerequisite: PSYC100 or FMSC105. Credit only granted for: FMSC332 or FMST332. Formerly: FMST332.

A family life education approach to the study of children and families. Emphasis on the interaction of children with parents, siblings, extended kin, and the community.

0201	Charles Conway TuTh 12:30pm - 1:45pm	Seats (Total: 40) HBK 0109
0301	Christine Schull MW 9:00am - 9:50am F 9:00am - 9:50am	Seats (Total: 45) BPS 0283 ONLINE

FMSC341 **Personal and Family Finance**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Credit only granted for: FMSC341 or FMST341. Formerly: FMST341.

Individual and family financial strategies with emphasis on financial planning, savings, investments, insurance, income taxes, housing, and use of credit. Planning, analyzing, and controlling financial resources to resolve personal/family financial problems and to attain financial security.

0101	Manouchehr Mokhtari Tu 5:30pm - 6:45pm Class time/details on ELMs	Seats (Total: 50) PLS 1130 ONLINE

FMSC381 **Family Inequality**

Credits: 3 | Grading Method: Regular, Pass-Fail , D | General Education: DSHS, DVUP

Prerequisite: SOCY100 or SOCY105. Restriction: Must be in a major within SPHL-Family Science department.

Social, political, cultural and economic factors influencing income and wealth in American families.

0101	Natasha Williams	Seats (Total: 35)
	MWF 9:00am - 9:50am	ONLINE

FMSC382 **Family Mediation and Negotiation**

Credits: 3 Grading Method: Regular, Pass-Fail

Recommended: FMSC487 and FMSC341. Credit only granted for: FMSC498M or FMSC382. Formerly: FMSC498M.

Investigates mediation as a forum of peaceful intervention. It is designed to provide students with an introduction and basic understanding of the essential principles of mediation and opportunities to put those principles to work. In so doing, students will obtain an in-depth knowledge of a practical "hands on" approach to divorce mediation as the conduct mediation skill builders and facilitate a successful mediation. Students will learn major mediation interventions and how such interventions may help establish a new dynamic among family members in their communications and relationships. To assist in understanding, we will discuss family law issues and ethics. The course also includes a focus on negotiation theory and skills and students will conduct a negotiation. We will use multi-media presentations, real life mediation observation, lecture and class discussion, role-play, and academic review and critic to reach the course goals and objectives.

0101	Kerry Tripp	Seats (Total: 40)
	Th 12:30pm - 3:00pm	CCC 1200

FMSC383 **Health and Human Services Delivery and Evaluation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FMSC330. Restriction: Must be in a major within SPHL-Family Science department.

Processes of service delivery with special emphasis upon relationships among managers, service providers and clients. The impact of human service systems on families.

0101	Ghaffar Hurtado Choque	Seats (Total: 60)
	MWF 11:00am - 11:50am	PLS 1130

FMSC399 **Independent Study**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

FMSC431 **Family Crises, Emergencies and Interventions**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100.

Examines the stressors in life that may lead families into a state of crisis or emergency and what can be done to help families when the need arises. Both internal stressors, such as substance abuse, finances, divorce, illness or parent-child conflict, and external stressors, such as community violence and natural disasters, are examined. Using theories and techniques for intervention and enhancement, the course examines factors involved in stressors turning into a family crisis and how factors such as emergency preparedness, social support and public policy can be a source of family resilience or protect families from negative outcomes.

0201	Mona Mittal TuTh 11:00am - 12:15pm	Seats (Total: 45) BPS 0283

FMSC432 **Adult Development and Aging in Families**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100; and (SOCY100 or SOCY105). And FMSC332; or must have completed a comparable development course. Restriction: Must be in a major within SPHL-Family Science department. Credit only granted for: FMSC432 or FMST432. Formerly: FMST432.

Theory, research, history, and programming related to adult development and aging in the intergenerational context of family.

0101	Christine Schull MW 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 45) HBK 0103 ONLINE

FMSC460 **Violence in Families**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DSHS, DVUP

Prerequisite: SOCY100, SOCY105, or PSYC100. Credit only granted for: FMSC460 or FMST460. Formerly: FMST460.

Theories of child, spouse, and elder abuse in the family setting. Emphasis on historical, psychological, sociological and legal trends relating to physical, emotional, and sexual abuse. Introduction to methods for prevention and remediation.

0101	Christine Schull MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 45) BPS 0283 ONLINE

FMSC477 **Internship and Analysis in Family Science**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: FMSC383; and 9 credits in FMSC courses; and permission of SPHL-Family Science department. Restriction: Must be in a major within SPHL-Family Science department. Credit only granted for: FMSC477, FMST347, or FMST477. Formerly: FMST477.

A supervised internship and a seminar requiring analysis. Opportunities to integrate theory and practice including 120 hours of contracted field experience. Summer or fall internship contracts due May 1; Spring contracts due December 1. See department for application procedures.

Instructor will provide further details on meeting dates in ELMS.

Click here for Application Deadlines and additional details..

0101	Kendyl Oliver	Seats (Total: 60)
	W 3:00pm - 4:30pm Class time/details on ELMs	MCB 1207 ONLINE

FMSC485 **Introduction to Family Therapy**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FMSC330; or 1 course from PSYC300-499 course range. Credit only granted for: FMSC485 or FMST485. Formerly: FMST485.

The fundamental theoretical concepts and clinical procedures of marital and family therapy including premarital and divorce therapy issues.

0101	Patricia Barros	Seats (Total: 40)
	Th 12:30pm - 3:00pm	HBK 0103

FMSC487 **Family Law**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Designed for students interested in studying the law, public health, and family science, this course provides students with a general overview of family law and the impact on healthy families. The course also includes the study of cutting-edge issues such as marriage equality, assisted reproduction and ethical issues that may arise.

0101	Kerry Tripp TuTh 11:00am - 12:15pm	Seats (Total: 49) PHY 1402

FMSC498 **Special Topics: Family Science; Family Studies**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Special course topics in family studies.

Contact department for information to register for this course.

FMSC498H **Special Topics: Family Science; Family Studies Honors Thesis**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Special course topics in family studies.

Contact department for information to register for this course.

FMSC498P **Special Topics: Family Science; Child and Family Policy Impact**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special course topics in family studies.

Cross-listing with PLCY388A. Credit only granted for PLCY388A or FMSC498P.

0101	Brandi Slaughter TuTh 2:00pm - 3:15pm	Seats (Total: 24) PHY 0405
0201	Brandi Slaughter TuTh 3:30pm - 4:45pm	Seats (Total: 24) PHY 2213

FMSC601 **Doctoral Seminar in the Process of Inquiry**

Credits: 1 Grading Method: Regular

Restriction: Must be a first-year student in the Family Science doctoral program or Maternal and Child Health doctoral program; or permission of instructor .

This small, team-taught pro-seminar is designed as an introduction to the integration of family science and public health paradigms. The focus is the full, complex "process of inquiry", with emphasis on the conceptualization phase of the process, as it leads to related design, planning, empirical, and analytic phases. Instead of emphasizing content, the pro-seminar will help students develop a broad "way of thinking" about scientific inquiry, which will guide their coursework, assessments, and independent scholarly work during their doctoral training.

0101	Kevin Roy	Seats (Total: 15)
	F 12:00pm - 3:00pm	Location: TBA

FMSC610 **Research Methods in Family Science**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: EDMS645; or students who have taken courses with comparable content may contact the department. Credit only granted for: FMSC610 or FMST610. Formerly: FMST610.

Research methods in family science. The role of theory, design, use of qualitative and quantitative measurement techniques, data collection and data analysis. Development of research proposals.

0101	Amy Morgan	Seats (Total: 15)
	Th 1:00pm - 3:45pm	Location: TBA

FMSC641 **Couples Therapy, Theory, and Techniques**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: FMSC640. Credit only granted for: FMSC641 or FMSC641. Formerly: FMST641.

Overview of theoretical models of couple relationships and methods of facilitating growth and interaction within those relationships. Emphasis on couples with conflicting needs and expectations, and dysfunctional communication and conflict negotiation skills.

0101	Marjorie Nightingale	Seats (Total: 15)
	Th 9:00am - 11:45am	Location: TBA

FMSC647 **Theory and Techniques of Family Mediation**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: FMSC647 or FMST647. Formerly: FMST647.

An introduction to family mediation as an approach to helping families deal effectively with the issues associated with separation and divorce. Theory, practice, and techniques of negotiation, with an emphasis on custody, property division, and the constructive restructuring of family relationships.

0101	Kerry Tripp Th 12:30pm - 3:00pm	Seats (Total: 35) Location: TBA

FMSC651 **Treatment of Emotional and Mental Disorders in Family Systems**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: FMSC650. Restriction: Must be in Couple and Family Therapy (Master's) program.

This course is designed to assist beginning therapists in developing their knowledge of the major theoretical approaches to family therapy and applying those approaches to their clinical work. In addition, the course addresses many procedural, professional, and ethical issues often faced by beginning therapists. Towards these ends, the primary foci of the course will be on developing competencies in (a) observing family process, (b) assessing and conceptualizing family strengths and problems from different theoretical models, and (c) developing treatment plans from these different theoretical models. Finally, attention will also be given to therapist self-care.

0101	Amy Morgan Tu 9:00am - 11:45am Contact instructor or department for details.	Seats (Total: 15) Location: TBA

FMSC653 **Advanced Application of CFT Models and Techniques**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: FMSC652. Restriction: Must be in Couple and Family Therapy (Master's) program.

This course is an integration of advanced assessment, diagnosis, and treatment procedures with couples, families, individuals, and groups. Emphasis will be on the following areas: (1) the advanced study of classic and emerging CFT models; (2) special topic areas (e.g., trauma, religious differences, grief & loss, family rituals,) and/or collaborative CFT in varied settings (e.g., schools, medical facilities, in-home/family preservation work, foster care, alcohol & drug centers); (3) development of a personal theory/philosophy of family therapy along with a case management system for that model. Additionally, development of the self of therapist, contributions to CFT as a profession, and employment as well as independent practice information including resume development, licensing laws and regulations in Maryland and other states will be explored. Also, procedures for preparing for the National MFT licensing exam will be discussed. Advanced professional practice will be demonstrated in case presentations related to the specific areas emphasized in the course.

0101	Patricia Barros Tu 9:00am - 11:45am Contact instructor or department for details.	Seats (Total: 15) Location: TBA

FMSC658 **Supervised Clinical Practice in Couple and Family Therapy; Theory and Practice of Clinical Supervision**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

This course is designed to provide supervision of family, couple, and individual therapy client contact. This course is limited to, and required of, all students admitted to the Couples and Family Therapy (CFT) Program. Supervision utilizes various family systems models and differing methods are employed.

0101	Mona Mittal W 9:00am - 11:45am	Seats (Total: 20) Location: TBA

FMSC689 **Research Internship**

(Perm req)

Credits: 3 Grading Method: Regular

Research experience resulting in a scholarly article suitable for publication in a peer-reviewed journal.

Contact department for information to register for this course.

FMSC698 **Advanced Topics in Family Science**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Arranged group study on specific topic which may vary from term to term.

Must have written permission of faculty member and chairperson.

Contact department for information to register for this course.

FMSC699 **Independent Study**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Contact department for information to register for this course.

FMSC720 **Study Design in Maternal Child Health Epidemiology**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EPIB610. Restriction: Permission of the Family Sciences department. Credit only granted for: EPIB612 or FMSC720.

A detailed survey of key epidemiologic study designs provided through readings, lectures, and exercises. Lectures begin by considering the evolution of epidemiologic thought and parallel developments in design of epidemiologic studies. Topics covered include assessment of causality in observational studies, investigation of acute outbreaks, survey design, cohort and case-control study designs, clinical randomized trials, and discussion of issues pertaining to measurement error in the assessment of exposures and outcomes in epdemiologic studies.

0101	Edmond Shenassa	Seats (Total: 15)
	Tu 1:00pm - 3:45pm	Location: TBA

FMSC780 **Qualitative Methods in Family and Health Research**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of the Family Sciences department. Credit only granted for: FMSC780 or FMST780. Formerly: FMST780.

Theoretical perspectives and methodological tools to conduct research with individuals and families across the life span. Review of research designs, participant fieldwork, observation and interview projects, data collection, computer-assisted data analysis, and development of grounded theory.

0101	Kevin Roy	Seats (Total: 15)
	M 1:00pm - 3:45pm	Location: TBA

FMSC789 **Non-Thesis Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Non-thesis option research papers.

Contact department for information to register for this course.

FMSC799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Must have written permission of faculty member and chairperson.

Contact department for information to register for this course.

FMSC820 **Advanced Quantitative Methods in Family and Health Research**

Credits: 3 Grading Method: Regular, Audit

Recommended: Basic knowledge regarding social science research methods, study design, univariate and bivariate statistics, and family theory.

This seminar is designed to help students understand, evaluate, and develop research conceptualization and design relevant to family science and family health. By the end of the course, students will be able to critique and develop theoretically grounded quantitative research in their respective area of study. Throughout the course, students will be exposed to a broad range of advanced methods that are core to the field of family science. The course will train students on how to conceptualize and develop rigorous empirical research studies relevant to family science and family health.

0101	Jessica Fish Th 12:45pm - 3:45pm	Seats (Total: 15) Location: TBA

FMSC879 **Preparing Future Faculty and Professionals Seminar**

Credits: 1 Grading Method: Regular

Development of skills necessary to obtain and succeed in academic and non-academic positions in family science and public health. Topics include: career mapping, networking, teaching/teaching portfolios, independent research, publishing, grant writing, program and policy evaluation, consulting, job search, interviewing and negotiation, mentoring, diversity, work-family balance, and ethical issues in the workplace. Periodic visits to universities and government/nonprofit employers.

0101	Sandra Quinn W 1:00pm - 1:50pm	Seats (Total: 30) Location: TBA

FMSC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

FMSC899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

FREN French Spring 2022

FREN103 **Intensive Elementary French**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not have completed FREN102; and must not be a native/fluent speaker of French. Credit only granted for: FREN102 or FREN103.

Covers speaking, reading, writing, listening, and culture of French-speaking world.

0101	Marie Laverdiere MWF 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 25) JMZ 0208 ONLINE
0201	Marie Laverdiere MWF 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 25) JMZ 1122 ONLINE

FREN203 **Intensive Intermediate French**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit CORE: HO

Prerequisite: FREN103; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a native/fluent speaker of French. Credit only granted for: FREN201 or FREN203.

Covers speaking, reading, writing, listening, and culture of French-speaking world.

0101	Charlotte Joublot MWF 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 25) JMZ 2123 ONLINE
0201	Michaelle Vilmont MWF 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 25) JMZ 2207 ONLINE
0301	Clara Danos MWF 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 25) JMZ 0122 ONLINE
0401	Michaelle Vilmont MWF 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 25) JMZ 2123 ONLINE

FREN204 **French Grammar and Composition**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO

Prerequisite: FREN201 or FREN203; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Not open to native/fluent speakers of French.

Intensive study of French grammar and composition.

0101	Samuel Blank MWF 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 25) JMZ 0205 ONLINE
0201	Madeline Muravchik MWF 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 25) JMZ 3205 ONLINE

FREN211 **French Reading and Conversation**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO

Prerequisite: FREN201 or FREN203. Restriction: Must not be a native/fluent speaker of French.

Practice in spoken French at intermediate level based on readings in a variety of genres. Written homework and exams.

Contact department for information to register for this course.

FREN241 **Women Writers of French Expression in Translation**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL, D | General Education: DSHU

Works and ideas of 20th century women writers of French in Canada, Africa, the Caribbean and France. Taught in English.

Contact department for information to register for this course.

FREN242 **Francophone Writers of Africa and the African Diaspora**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL, D | General Education: DSHU, DVUP

An analysis of the works and ideas of 20th and 21st century Francophone writers (Africa, the Caribbeans, France). Taught in English.

0101	Valerie Orlando MW 2:00pm - 3:15pm	Seats (Total: 25) JMZ 2122

FREN250 **Introduction to Cultural and Textual Analysis**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

Prerequisite: FREN204; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a native/fluent speaker of French. Credit only granted for: FREN250 or FREN250H.

Introduction to cultural and textual analysis of selected readings from various genres in French literature. Taught in French.

Cross-listed with FREN250H. Credit granted for FREN250 or FREN250H.

0101	Inaam Ngadi TuTh 11:00am - 12:15pm	Seats (Total: 25) JMZ 2122
0201	Inaam Ngadi TuTh 12:30pm - 1:45pm	Seats (Total: 25) JMZ 1224

FREN250H **Introduction to Cultural and Textual Analysis**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

Prerequisite: FREN204; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a native/fluent speaker of French. Credit only granted for: FREN250 or FREN250H.

Introduction to cultural and textual analysis of selected readings from various genres in French literature. Taught in French.

For general honors students only. Cross-listed with FREN250. Credit granted for FREN250 or FREN250H.

0101	Inaam Ngadi TuTh 11:00am - 12:15pm	Seats (Total: 25) JMZ 2122
0201	Inaam Ngadi TuTh 12:30pm - 1:45pm	Seats (Total: 25) JMZ 1224

FREN269C **Special Topics in Study Abroad II; La Chason Francaise: Then and Now**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN269F **Special Topics in Study Abroad II; French Conversation I**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN269G **Special Topics in Study Abroad II; French Conversation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN269L **Special Topics in Study Abroad II; LANGUAGE AND CINEMA**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN269P **Special Topics in Study Abroad II; Perspectives on Contemporary France**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN269Z **Special Topics in Study Abroad II; Third-Year French II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN301 **Composition and Style**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN250; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a native/fluent speaker of French.

Grammatical analysis, elements of style; range of written genres.

0101	Theavy Din MW 2:00pm - 3:15pm	Seats (Total: 20) JMZ 3205
0201	Maria Beliaeva Solomon TuTh 2:00pm - 3:15pm	Seats (Total: 20) ONLINE

FREN302 **Introduction to Translation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department.

Hands-on practice in translation to include a variety of formats and texts (for example, advertising, legal, technical, literary, journalistic, media...) into French and/or English. Includes an extensive overview of translation techniques, theories and approaches. Taught mainly in French.

0101	Herve Campangne TuTh 2:00pm - 3:15pm	Seats (Total: 20) JMZ 2125

FREN306 **Commercial French I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department.

Introduction to commercial French including correspondence and business terminology. Emphasis on cross-cultural concepts needed for successful interaction within business settings. Taught in French.

Taught in French.

0101	Hannah Wegmann TuTh 11:00am - 12:15pm	Seats (Total: 20) JMZ 0118

FREN311 **Advanced Oral Expression**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN250; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a native/fluent speaker of French.

Linguistic and thematic analysis of written, audio, and visual texts. Focus on aural and oral skills. Some written assignments and evaluation.

Contact department for information to register for this course.

FREN312 **France Today**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a native/fluent speaker of French.

Analysis and discussion of current events and institutions using various French media resources.

Contact department for information to register for this course.

FREN351 **From Romanticism to the Age of Modernism and Beyond**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department.

A survey of the chief authors and major movements of French literature from Pre-Romanticism to the present.

Contact department for information to register for this course.

FREN352 **From the Age of Epic and Romance to the Enlightenment**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department.

A survey of the chief authors and major movements of French literature from the Middle Ages to the end of the 18th century.

Cross-listed with FREN352H. Credit granted for FREN352 or FREN352H.

0101	Sarah Benharrech	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	JMZ 3120

FREN352H **From the Age of Epic and Romance to the Enlightenment**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department.

A survey of the chief authors and major movements of French literature from the Middle Ages to the end of the 18th century.

Restricted to Honors students only. Cross-listed with FREN352. Credit granted for FREN352 or FREN352H.

0101	Sarah Benharrech	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	JMZ 3120

FREN369F **Special Topics in Study Abroad III; Third-Year French I**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN369G **Special Topics in Study Abroad III; Third-Year French II**

Credits: 1-6

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN369Y **Special Topics in Study Abroad III; Fourth-Year French I**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN386 **Experiential Learning**

(Perm req)

Credits: 3-6

Grading Method: Regular, Pass-Fail

Prerequisite: Permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

FREN387 **Critical Writing on France and the French-Speaking World**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN301. Restriction: Not open to Native speakers.

Intensive writing course based on focused study of issues and concerns drawn from French and Francophone literatures, films, and cultures. Elements of style, review of grammar. Taught in French.

0101	Maria Beliaeva Solomon	Seats (Total: 20)
	Tu 12:30pm - 1:45pm	JMZ 2123
	Class time/details on ELMs	ONLINE

FREN399 **Directed Study in French**

(Perm req)

Credits: 1-3 Grading Method: Regular

Advanced undergraduates develop syllabus, reading list, and course requirements with interested faculty member. Designed for in-depth study of material not offered in regular courses or as expansion of course material. To be planned during semester preceding registration.

Supervised work under professor of student's choice with permission of instructor. Contact department for details.

Contact department for information to register for this course.

FREN399A **Directed Study in French**

Credits: 3 Grading Method: Regular, Pass-Fail

Advanced undergraduates develop syllabus, reading list, and course requirements with interested faculty member. Designed for in-depth study of material not offered in regular courses or as expansion of course material. To be planned during semester preceding registration.

Contact department for information to register for this course.

FREN399B **Directed Study in French; Directed Study in Nice II**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Advanced undergraduates develop syllabus, reading list, and course requirements with interested faculty member. Designed for in-depth study of material not offered in regular courses or as expansion of course material. To be planned during semester preceding registration.

Contact department for information to register for this course.

FREN449A **Studies in 18th Century French Literature and Culture; Riots, Rebellions and Revolutions: Cultures of Dissent**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics in eighteenth-century French literature.

Prerequisite: FREN387. Exploration of forms of dissent in the Enlightenment: deviations from established dogmas, reactions against religious intolerance, and denunciation of slavery during the French and Haitian revolutions. Taught in French.

0101	Sarah Benharrech	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	JMZ 0118

FREN495H **Honors Thesis Research**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be admitted to the departmental honors program.

The writing of a paper under the direction of a professor in this department and an oral examination. Required to fulfill the departmental honors requirement.

Contact department for information to register for this course.

FREN499C **Special Topics in French Studies; Youth, Identity, Nation: A Survey of Quebec Cinema**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An aspect of French studies, the specific topic to be announced each time the course is offered.

Crosslisted with CINE429K. Credit only granted for FREN499C, CINE429K, or FILM429K. A survey of Quebec cinema, looking at questions of identity, youth culture, gender, sexuality, race, disability, etc. in relationship to the evolution of (post)nationalism, from the 1960s to today. Taught in English.

0101	Mercedes Baillargeon	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	JMZ 3203

FREN499P **Special Topics in French Studies; Le Polar: Detective Fiction, Crime TV and Film Noir**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An aspect of French studies, the specific topic to be announced each time the course is offered.

Prerequisite: FREN387. This course explores le polar (crime fiction) and le film noir (crime films) as art forms that have captured the imagination from the 19th century to the 21st in France and the French-speaking world. Taught in French.

0101	Valerie Orlando	Seats (Total: 20)
	MW 3:30pm - 4:45pm	JMZ 1122

FREN499X **Special Topics in French Studies; Directed Study in French**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An aspect of French studies, the specific topic to be announced each time the course is offered.

Contact department for information to register for this course.

FREN601 **The History of the French Language**

Credits: 3 Grading Method: Regular, Audit

0101	Mary Ellen Scullen	Seats (Total: 10)
	M 4:30pm - 7:15pm	JMZ 3122

FREN699P **Seminar; Travel Narratives from Cartier to Tocqueville**

Credits: 3 Grading Method: Regular, Audit

Topic to be determined each semester.

In this seminar we will study the transformations undergone by the travel narrative genre from the sixteenth century onto the early nineteenth century. Readings will include works by Cartier, Lery, Montaigne, Descartes, Fenelon, Graffigny and Tocqueville. Taught in French.

0101	Herve Campangne	Seats (Total: 10)
	Tu 4:00pm - 6:45pm	JMZ 3106A

FREN798 **Master's Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Contact department for information to register for this course.

FREN799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

FREN889 **Doctoral Independent Study**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Contact department for information to register for this course.

FREN898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

FREN899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

GEMS Gemstone Spring 2022

GEMS102 **Research Topic Exploration and Team Formation**

Credits: 1 Grading Method: Regular, Pass-Fail

Restriction: Must be in the Gemstone program.

Under the guidance of staff and visiting speakers, students will develop research topics that they will pursue for the remainder of their participation in the Gemstone program, and form into interdisciplinary teams around these topics.

0101	David Lovell	Seats (Total: 180)
	Meets January 24, 2022 - March 27, 2022	
	Th 5:00pm - 7:00pm	EGR 1202

GEMS104 **Topics in Science, Technology and Society (STS)**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: IE General Education: DSHS, DSHU, DSSP, SCIS

Prerequisite: GEMS100. Restriction: Must be in the Gemstone program.

An examination of how cultural, economic, political and social forces shape scientific and technological systems and, conversely, how scientific and technological systems have affected the culture, economies, organization and politics of societies. Students in the course will form small teams to carry out semester-long research on socio/technical topics related to the course theme chosen for that specific semester.

GEMS104 discussions will be various times through the week beginning January 24 and running through spring break on March 18. Beginning with week 9, March 28 (the week after spring break), GEMS104 lectures will continue to be on Tuesdays from 5-6:15pm and discussions will move to Thursdays (March 31 is the first Thursday) from 5-6:15pm.

0101	David Lovell Tu 5:00pm - 6:15pm W 10:30am - 11:45am	Seats (Total: 12) ESJ 0224 ELL 0100A	Discussion
0102	David Lovell Tu 5:00pm - 6:15pm W 12:00pm - 1:15pm	Seats (Total: 12) ESJ 0224 ELL 0102	Discussion
0103	David Lovell Tu 5:00pm - 6:15pm W 2:00pm - 3:15pm	Seats (Total: 12) ESJ 0224 ELL 0100A	Discussion
0104	David Lovell Tu 5:00pm - 6:15pm W 3:00pm - 4:15pm	Seats (Total: 12) ESJ 0224 ELL 0102	Discussion
0105	David Lovell Tu 5:00pm - 6:15pm Th 9:00am - 10:15am	Seats (Total: 12) ESJ 0224 ELL 0100A	Discussion
0106	David Lovell Tu 5:00pm - 6:15pm Th 9:30am - 10:45am	Seats (Total: 12) ESJ 0224 ELL 0102	Discussion
0107	David Lovell Tu 5:00pm - 6:15pm Th 11:00am - 12:15pm	Seats (Total: 12) ESJ 0224 ELL 0100A	Discussion
0108	David Lovell Tu 5:00pm - 6:15pm Th 11:00am - 12:15pm	Seats (Total: 12) ESJ 0224 ELL 0102	Discussion
0109	David Lovell Tu 5:00pm - 6:15pm Th 12:30pm - 1:45pm	Seats (Total: 12) ESJ 0224 ELL 0100A	Discussion

0110	David Lovell Tu 5:00pm - 6:15pm Th 2:00pm - 3:15pm	Seats (Total: 12) ESJ 0224 ELL 0102	 Discussion
0111	David Lovell Tu 5:00pm - 6:15pm Th 2:30pm - 3:45pm	Seats (Total: 12) ESJ 0224 ELL 0100A	 Discussion
0112	David Lovell Tu 5:00pm - 6:15pm F 9:30am - 10:45am	Seats (Total: 12) ESJ 0224 ELL 0102	 Discussion
0113	David Lovell Tu 5:00pm - 6:15pm F 10:00am - 11:15am	Seats (Total: 12) ESJ 0224 ELL 0100A	 Discussion
0114	David Lovell Tu 5:00pm - 6:15pm F 11:00am - 12:15pm	Seats (Total: 12) ESJ 0224 ELL 0102	 Discussion
0115	David Lovell Tu 5:00pm - 6:15pm F 12:00pm - 1:15pm	Seats (Total: 12) ESJ 0224 ELL 0100A	 Discussion

GEMS208D **Special Topics in Leadership and Team Development; Introduction to Gemstone; Returner TA**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0101	David Lovell Contact instructor or department for details.	Seats (Total: 1)

GEMS208E **Special Topics in Leadership and Team Development; Research Topic Exploration Teaching Freshmen First Time Section Leader**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0101	David Lovell	Seats (Total: 18)
	Contact instructor or department for details.	

GEMS208F **Special Topics in Leadership and Team Development; Research Topic Exploration Teaching Freshmen: Returner Section Leader**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

Restricted to Gemstone Students.

0201	David Lovell	Seats (Total: 12)
	Contact instructor or department for details.	

GEMS208J **Special Topics in Leadership and Team Development; Gems Camp**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0101	Jalah Townsend	Seats (Total: 24)
	Contact instructor or department for details.	

GEMS208K **Special Topics in Leadership and Team Development; GEMS Connect**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0101	Jalah Townsend	Seats (Total: 30)
	Contact instructor or department for details.	

GEMS208M **Special Topics in Leadership and Team Development; AMPP: The Gemstone Alumni Mentor & Partner Program**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0101	Jalah Townsend	Seats (Total: 100)
	Contact instructor or department for details.	

GEMS208P **Special Topics in Leadership and Team Development; Gemstone Leadership Council**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0101	Jalah Townsend	Seats (Total: 15)
	Contact instructor or department for details.	

GEMS208Q **Special Topics in Leadership and Team Development; Facilitator TA**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0201	Jalah Townsend	Seats (Total: 1)
	Contact instructor or department for details.	

GEMS208R **Special Topics in Leadership and Team Development; Gemstone Equity- Centered Dialogue Facilitation**

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0201	Jalah Townsend Su 6:00pm - 7:30pm	Seats (Total: 1) JMZ 1224

GEMS296 **Team Project Seminar I**

Credits: 1

Grading Method: Regular, Pass-Fail

Prerequisite: GEMS100, GEMS102, and GEMS104. Corequisite: GEMS202. Restriction: Must be in the Gemstone program with sophomore standing in a research team.

This is the first of six seminars during which Gemstone students carry out multidisciplinary research with the guidance of a faculty mentor. The teams develop their working relationship, start their literature search, define their research question, and set short & long term goals.

0113	David Lovell Contact instructor or department for details.	Seats (Total: 5)

GEMS297 **Team Project Seminar II**

Credits: 2

Grading Method: Regular, Pass-Fail

Restriction: Must be in the Gemstone program with sophomore standing in a research team.

This is the second of six seminars during which Gemstone students carry out interdisciplinary research with the guidance of a faculty mentor. The team develops its website, prepares and presents its research proposal and begins its research project.

0101	Kan Cao Contact instructor or department for details. Tu 8:30pm - 9:20pm	Seats (Total: 14) ESJ B0322
0102	Tao Lowe Th 8:00am - 8:50am W 6:00pm - 6:50pm	Seats (Total: 14) ONLINE HBK 0103

0103	Brian Beaudoin M 5:00pm - 5:50pm F 5:00pm - 5:50pm	Seats (Total: 14) Location: TBA Location: TBA
0104	Bao Yang M 5:00pm - 5:50pm W 5:30pm - 6:30pm	Seats (Total: 14) EGR 3102 ESJ B0320
0105	David Kriesberg M 6:15pm - 7:15pm W 8:00am - 9:00am	Seats (Total: 14) BPS 1232 ONLINE
0106	Soheil Feizi F 4:00pm - 4:50pm Su 6:00pm - 6:50pm	Seats (Total: 14) ONLINE ONLINE
0107	Ray Sedwick Contact instructor or department for details.	Seats (Total: 15)
0108	Lance Yonkos W 7:00pm - 7:50pm M 8:00pm - 8:50pm	Seats (Total: 14) ANS 0538 ESJ B0322
0109	Timothy Horiuchi M 3:00pm - 3:50pm W 7:00pm - 7:50pm	Seats (Total: 14) Location: TBA Location: TBA
0110	Po-Yen Chen Tu 8:00am - 8:50am F 5:00pm - 7:00pm	Seats (Total: 14) Location: TBA HJP 2242
0111	Tracy Zeeger F 2:00pm - 2:50pm M 6:00pm - 6:50pm	Seats (Total: 14) Location: TBA ESJ B0322
0112	Ryan Sochol Tu 5:30pm - 6:30pm W 9:00am - 9:50am	Seats (Total: 14) TWS 0223 ONLINE
0113	David Lovell Contact instructor or department for details.	Seats (Total: 5)

GEMS396 **Team Project Seminar III**

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: GEMS297. Restriction: Must be in the Gemstone program with junior standing in a research team.

This is the third of six seminars during which Gemstone students carry out interdisciplinary research with the guidance of a faculty mentor. The team presents its progress at the Gemstone Colloquia.

0113	David Lovell Contact instructor or department for details.	Seats (Total: 5)

GEMS397 **Team Project Seminar IV**

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: GEMS396. Restriction: Must be in the Gemstone program with junior standing in a research team.

This is the fourth of six seminars during which Gemstone students carry out interdisciplinary research with the guidance of a faculty mentor. The team further develops its website. Also they will prepare and present the team project in the poster session of Undergraduate Research Day.

Restricted to Gemstone Students.

0101	Anil Deane F 4:00pm - 4:50pm M 1:00pm - 1:50pm	Seats (Total: 14) ONLINE IRB 2207
0102	Mohamad Al-Sheikhly M 6:15pm - 8:15pm Contact instructor or department for details.	Seats (Total: 14) CHE 2337
0103	Steve Sin M 6:30pm - 8:10pm	Seats (Total: 14) IRB 1207
0104	Silvina Matysiak M 5:00pm - 5:50pm Tu 5:00pm - 5:50pm F 2:00pm - 2:50pm	Seats (Total: 14) ESJ 2309 ONLINE ONLINE

0105	Ray Sedwick M 5:00pm - 5:50pm Sa 12:00pm - 12:50pm	Seats (Total: 14) Location: TBA Location: TBA
0106	David Akin Tu 5:30pm - 7:30pm	Seats (Total: 14) Location: TBA
0107	Yanjin Zhang MW 6:00pm - 6:50pm	Seats (Total: 14) HBK 0123
0108	Richard Blanton TuTh 3:30pm - 4:30pm	Seats (Total: 14) AJC 2223
0109	Jae Kun Shim Th 5:00pm - 5:50pm Tu 5:00pm - 5:50pm	Seats (Total: 14) SPH 0102 Location: TBA
0110	Mary Beth Furst Th 3:30pm - 4:40pm F 10:00am - 11:00am	Seats (Total: 14) ONLINE ONLINE
0111	Younggeon Jin M 4:30pm - 6:30pm	Seats (Total: 14) ANS 1408
0113	David Lovell Contact instructor or department for details.	Seats (Total: 5)

GEMS496 **Project Writing Seminar**

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: GEMS397. Restriction: Must be in the Gemstone program.

This is the fifth of six seminars during which Gemstone students carry out research with the guidance of a faculty mentor. The team finishes the analysis of their data and writes and edits its team thesis.

0113	David Lovell Contact instructor or department for details.	Seats (Total: 5)

GEMS497 **Team Thesis Defense**

Credits: 2 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Prerequisite: GEMS396. Restriction: Must be in the Gemstone program.

Gemstone teams will complete the team research project and thesis. The team will formally present the thesis to experts in the area of interest at a Team Thesis Conference before final submission.

0101	J Carson Smith F 4:00pm - 4:50pm Tu 8:00pm - 8:50pm	Seats (Total: 14) ONLINE ONLINE
0102	Steven Mitchell W 9:00am - 9:50am M 12:00pm - 12:50pm	Seats (Total: 14) ONLINE EGR 1102
0103	Kan Cao M 1:00pm - 1:50pm Th 3:00pm - 3:50pm	Seats (Total: 14) ONLINE ONLINE
0104	Mona Mittal M 8:00am - 8:50am Tu 7:00pm - 7:50pm	Seats (Total: 14) ONLINE ONLINE
0105	Stephanie Yarwood W 8:00am - 8:50am Th 10:00am - 10:50am	Seats (Total: 14) ONLINE ONLINE
0106	Siddhartha Das W 5:30pm - 7:30pm	Seats (Total: 14) EGR 0159
0107	Pierre-Emmanuel Jabin MW 7:00pm - 7:50pm	Seats (Total: 14) ONLINE
0108	John Baras F 9:00am - 9:50am F 12:00pm - 12:50pm	Seats (Total: 14) ONLINE ONLINE
0109	Mohamad Al-Sheikhly Tu 6:20pm - 7:10pm F 3:00pm - 3:50pm	Seats (Total: 14) CHE 2116 Location: TBA

0110	Romel Gomez Tu 6:00pm - 7:50pm	Seats (Total: 14) AVW 2328	
0111	Anil Deane Th 6:30pm - 7:30pm Tu 6:00pm - 6:50pm	Seats (Total: 14) ONLINE ESJ B0322	
0112	Rodolphe Gentili Contact instructor or department for details.	Seats (Total: 14)	
0113	David Lovell Contact instructor or department for details.	Seats (Total: 5)	

GEOG Geographical Sciences Spring 2022

GEOG140 **Natural Disasters: Earthquakes, Floods, and Fires**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: PS | General Education: DSNS, SCIS

Catastrophic Environmental Events (CCE) that are becoming more common in this time of global environmental change and it is essential that today's students be equipped with the knowledge and skills to be leaders as we, as a society, understand the upheaval that these CCEs are causing. Students will examine how CEEs shape human society and ecosystem from the interdisciplinary perspective afforded by the field of Geography. Students will use the latest geographic science concepts and techniques in exploring these events. Using satellite imagery they will gain a multi-scale perspective of the ecological and societal aspects of the events.

0101	Keith Yearwood MW 12:00pm - 12:50pm Th 11:00am - 11:50am	Seats (Total: 25) SHM 2102 SQH 1103	 Discussion
0102	Keith Yearwood MW 12:00pm - 12:50pm Th 9:30am - 10:20am	Seats (Total: 25) SHM 2102 PLS 1115	 Discussion
0103	Keith Yearwood MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 25) SHM 2102 TYD 2106	 Discussion
0104	Keith Yearwood MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 25) SHM 2102 EGR 3114	 Discussion

0105	Keith Yearwood MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 25) SHM 2102 JMZ 2206	Discussion
0106	Keith Yearwood MW 12:00pm - 12:50pm Th 9:30am - 10:20am	Seats (Total: 25) SHM 2102 JMP 1109	Discussion
0201	Keith Yearwood MW 9:00am - 9:50am Th 9:30am - 10:20am	Seats (Total: 25) LEF 2205 CHE 2136	Discussion
0202	Keith Yearwood MW 9:00am - 9:50am Th 11:00am - 11:50am	Seats (Total: 25) LEF 2205 MTH 0307	Discussion
0203	Keith Yearwood MW 9:00am - 9:50am F 10:00am - 10:50am	Seats (Total: 25) LEF 2205 LEF 0135	Discussion
0204	Keith Yearwood MW 9:00am - 9:50am F 1:00pm - 1:50pm	Seats (Total: 25) LEF 2205 JMZ 1122	Discussion

GEOG172 **Earth From Space**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNS, SCIS

Earth observations from space enable the mapping and monitoring of our changing planet. This survey course reviews current observational capabilities and examines scientific applications in quantifying global environmental change. Drivers and outcomes of key dynamics will be illustrated and discussed, including sea and continental ice loss, deforestation, ocean warming, urbanization, agricultural expansion and intensification, and vegetation response to climate change.

0101	Matthew Hansen TuTh 2:00pm - 3:15pm	Seats (Total: 100) TWS 0310

GEOG201 **Geography of Environmental Systems**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNL (if taken with GEOG211)

A systematic introduction to the processes and associated forms of the atmosphere and earth's surfaces emphasizing the interaction between climatology, hydrology and geomorphology.

0101	Laura Duncanson TuTh 9:30am - 10:45am	Seats (Total: 240) LEF 2205	

GEOG202 **Introduction to Human Geography**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS, DVCC

Introduction to what geographers do and how they do it. Systematic study of issues regarding social and cultural systems from a global to a local scale. Looks at the distribution of these variables and answers the question "Why here, and not there"?

0101	Julie Silva MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 25) ARC 0204 TYD 2106	Discussion
0102	Julie Silva MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 25) ARC 0204 EGR 1108	Discussion
0103	Julie Silva MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 25) ARC 0204 ASY 3221	Discussion
0105	Julie Silva MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 25) ARC 0204 TYD 2106	Discussion

GEOG211 **Geography of Environmental Systems Laboratory**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in GEOL120, GEOL100, or GEOG201.

A laboratory course to accompany GEOG 201. Analysis of the components of the earth's energy balance using basic instrumentation; weather map interpretation; soil analysis; the application of map and air photo interpretation techniques to landform analysis.

0101	Laura Duncanson, Baobao Liu Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab

0201	Laura Duncanson, Baobao Liu Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
0301	Laura Duncanson, Baobao Liu Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
0401	Baobao Liu, Laura Duncanson Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
0501	Baobao Liu, Laura Duncanson Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
0601	Laura Duncanson, Zihan Chen Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
0701	Zihan Chen, Laura Duncanson Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
0801	Laura Duncanson, Zihan Chen Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
0901	Laura Duncanson, Zihan Chen Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
1001	Laura Duncanson, Zihan Chen Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab

GEOG212 **Career Planning for Geographical Sciences, GIS, and ENSP Majors**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in one of the following programs (Geography; GEOG-GIS & Computer Cartography).

Increase student knowledge of professional development opportunities in Geographical Sciences through classroom activities and invited speakers, and to build awareness of career development tools and strategies.

0101	Amanda Hall W 3:00pm - 5:00pm	Seats (Total: 48) LEF 1158	Lab

GEOG301 **Advanced Geographical Environmental Systems**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOG201 and GEOG211. Credit only granted for: GEOG398B or GEOG301. Formerly: GEOG398B.

This course will provide the students with an overview of the key elements of physical geography, including biogeography (factors and processes that control the geographical distributions of plants and animals, climatology (processes associated with controlling variations in weather and climate), and geomorphology (factors and processes that control changes to the physical structure of the earth surface in relation to geological structures).

0101	Ralph Dubayah TuTh 12:30pm - 1:45pm	Seats (Total: 50) IRB 1207	

GEOG306 **Introduction to Quantitative Methods for the Geographical Environmental Sciences**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSAR

Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201.

Essentials in the quantitative analysis of spatial and other data, with a particular emphasis on statistics and programming. Topics include data display, data description and summary, statistical inference and significance tests, analysis of variance, correlation, regression, and some advanced concepts, such as matrix methods, principal component analysis, and spatial statistics. Students will develop expertise in data analysis using advanced statistical software.

Students must pay a $40.00 lab materials fee.

0101	Naijun Zhou MW 9:00am - 9:50am W 12:00pm - 1:50pm	Seats (Total: 25) TYD 0117 LEF 1136	 Lab
0102	Naijun Zhou MW 9:00am - 9:50am W 2:00pm - 3:50pm *Restriction: Open to GEOG, GIS, & ENSP-Coastal, Land Use, Global majors or GIS and Remote Sensing minors only.*	Seats (Total: 25) TYD 0117 LEF 1136	 Lab
0103	Naijun Zhou MW 9:00am - 9:50am W 4:00pm - 5:50pm	Seats (Total: 25) TYD 0117 LEF 1136	 Lab

0104	Naijun Zhou MW 9:00am - 9:50am F 11:00am - 12:50pm	Seats (Total: 25) TYD 0117 LEF 1136	 Lab

GEOG331 **Introduction to Human Dimensions of Global Change**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANTH220, ANTH260, GEOG202, or GEOG201; or permission of BSOS-Geography department. Credit only granted for: GEOG331 or GEOG361. Formerly: GEOG361.

Introduction to global-scale interrelationship between human beings and the environment. The development of global issues including but not limited to the environment, food, energy, technology, population, and policy.

0101	Meredith Gore MWF 2:00pm - 2:50pm	Seats (Total: 35) LEF 2205	

GEOG373 **Geographic Information Systems**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Characteristics and organization of geographic data; creation and use of digital geospatial databases; metadata; spatial data models for thematic mapping and map analysis; use of geographic information system in society, government, and business. Practical training with use of advanced software and geographic databases.

Students must pay a $40.00 lab materials fee.

0101	Naijun Zhou MW 12:00pm - 12:50pm F 9:00am - 10:50am	Seats (Total: 25) TYD 1101 LEF 1136	 Lab
0102	Naijun Zhou MW 12:00pm - 12:50pm F 1:00pm - 2:50pm *Restriction: Open to GEOG, GIS, & ENSP-Coastal, Land Use, Global majors or GIS and Remote Sensing minors only.*	Seats (Total: 25) TYD 1101 LEF 1136	 Lab
0103	Naijun Zhou MW 12:00pm - 12:50pm F 3:00pm - 4:50pm	Seats (Total: 25) TYD 1101 LEF 1136	 Lab

GEOG376 **Programming for Geospatial Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOG276 and GEOG373; Must have completed or be concurrently enrolled in MATH120, MATH130, or MATH140; or must have completed MATH220. Recommended: GEOG306.

Covers conceptual and practical aspects of geospatial data modeling and analysis techniques using the Python programming language. The main focus is on developing a solid understanding of the programmatic conventions needed to create, manipulate, and process geospatial data types, such as point, line, & polygon vectors, networks, trajectories, and space-time extensions. In addition, students will develop a proficiency in applying these data structures to perform automated geospatial analysis, such as GIS operations, agent-based models, and spatial statistics.

Students must pay a $40.00 lab materials fee.

0101	Taylor Oshan MW 12:00pm - 12:50pm F 9:00am - 10:50am	Seats (Total: 24) LEF 1158 LEF 1138	 Lab
0102	Taylor Oshan MW 12:00pm - 12:50pm F 3:00pm - 4:50pm *Restriction: Open to GEOG, GIS, and ENSP-Coastal, Land Use, Global majors only.*	Seats (Total: 24) LEF 1158 LEF 1138	 Lab

GEOG384 **Internship in Geography I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: GEOG211, GEOG306, GEOG212, and GEOG201; and (ENGL393 or ENGL390). Restriction: Must be in Geography program.

Supervised field training to provide career experience. Introduction to professional level activities, demands, opportunities. Placement at a public agency, non-profit organization, or private firm. Participation requires application to the internship advisor in preceding semester.

0101	Keith Yearwood Contact instructor or department for details.	Seats (Total: 25)

GEOG384H **Internship in Geography I**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: GEOG211, GEOG306, GEOG212, and GEOG201; and (ENGL393 or ENGL390). Restriction: Must be in Geography program.

Supervised field training to provide career experience. Introduction to professional level activities, demands, opportunities. Placement at a public agency, non-profit organization, or private firm. Participation requires application to the internship advisor in preceding semester.

0101	Keith Yearwood	Seats (Total: 5)
	Contact instructor or department for details.	

GEOG385 **Internship in Geography II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOG211, GEOG306, GEOG212, and GEOG201; and must have completed a Junior (Professional) English course. Restriction: Must be in Geography program.

Supervised field training to provide career experience. Introduction to professional-level activities, demands, opportunities. Placement at a public agency, nonprofit organization, or private firm. Participation requires application to the internship advisor in preceding semester.

0101	Keith Yearwood	Seats (Total: 25)
	Contact instructor or department for details.	

GEOG385H **Internship in Geography II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOG211, GEOG306, GEOG212, and GEOG201; and must have completed a Junior (Professional) English course. Restriction: Must be in Geography program.

Supervised field training to provide career experience. Introduction to professional-level activities, demands, opportunities. Placement at a public agency, nonprofit organization, or private firm. Participation requires application to the internship advisor in preceding semester.

0101	Keith Yearwood	Seats (Total: 5)
	Contact instructor or department for details.	

GEOG398 **Special Topics in Geography**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An introductory course dealing with special topics in geography.

Contact department for information to register for this course.

GEOG398E **Special Topics in Geography; Introduction to Spatial Artificial Intelligence**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An introductory course dealing with special topics in geography.

An introductory course to spatial artificial intelligence (AI), providing a big picture of spatial AI applications (e.g., Google Maps, Uber/Lyft, Earth observation, smart cities, autonomous vehicles), techniques, platforms, trends, debates, etc. The course will cover basics of AI, identify challenges faced by AI techniques in the context of spatial data and applications, and introduce spatial-aware AI methods to address them. AI topics include but are not limited to: spatial data models and knowledge representation, pattern mining, machine learning, perception, planning, etc. Students are expected to have a broad understanding of spatial A concepts, develop intuitions and insights to AI techniques, and have some hands-on experience (Python) at the end of the course.

0101	Yiqun Xie	Seats (Total: 25)
	TuTh 5:00pm - 6:15pm	LEF 2166

GEOG398H **Special Topics in Geography**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

An introductory course dealing with special topics in geography.

0101	Instructor: TBA	Seats (Total: 5)
	Contact instructor or department for details.	
	Contact department or instructor for details.	
0102	George Hurtt	Seats (Total: 5)
	Contact instructor or department for details.	

GEOG416 **Conceptualizing and Modeling Human-Environmental Interactions**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of BSOS-Geography department. Corequisite: MATH130, MATH140, or MATH120; or MATH220.

Develops skills to carry out research that integrates environmental and economic aspects of sustainability by introducing extensively used quantitative tools for analyzing human-environmental interactions in the field of ecological economics. These include, e.g., index number calculations and decomposition analysis, Environmental Kuznets Curve (EKC), environmental input-output analysis and life-cycle analysis, and multi-criteria decisions aid (MCDA). Students will need laptops to run models during class.

0101	Kuishuang Feng	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	LEF 1158

GEOG421 **Changing Geographies of China**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of BSOS-Geography department. Or GEOG202; and GEOG201; and (GEOG435, GEOG333, or GEOG332). Recommended: GEOG130; or GEOG140. Credit only granted for: GEOG328B or GEOG421. Formerly: GEOG328B.

Covers physical geography, history, and economic and political systems of the world's most populous country. The major focus will be on geographical issues in China's contemporary development: agriculture, population, urbanization, resource and energy, and environment.

0101	Shunlin Liang	Seats (Total: 24)
	TuTh 11:00am - 12:15pm	ONLINE

GEOG430 **Climate, Energy, and Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of BSOS-Geography department. Or GEOG201 or GEOG202; and (GEOG306 and GEOG301). Jointly offered with GEOG630. Cred it only granted for: GEOG430, GEOG630 or GEOG498E. Formerly: GEOG498E.

Students will learn about climate change and energy policy from multiple perspectives includingsocial economic, technological, scientific, and behavioural aspects and their interdependence.The course will also consider the report of the Intergovernmental Panel onClimate Change on mitigation and applied cost/benefit analysis of Climate Change. Formatwill be discussion, supplemented with lecture segments and applied workshops asneeded. This course will make occasional use the popular open source statistical computerlanguage R for practical workshops

0101	Giovanni Baiocchi	Seats (Total: 25)
	W 5:00pm - 7:30pm	LEF 2166

GEOG441 **The Coastal Ocean**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOG140; or students who have taken courses with comparable content may contact the department; or permission of BSOS-Geography department. Credit only granted for: GEOG441 or GEOG498C. Formerly: GEOG498C.

Introduction to coastal oceanography, focusing on the physical, biological, and geological aspects of ocean areqs on the inner continental shelves. Wave, currents, and tidal dynamics of bays, open coast, estuaries, and deltas. Sedimentary environments of major coastal types. Ecology and biogeochemical relationships, including benthic and planktonic characteristics. Coastal evolution with sea level rise. Human impacts: eutrophication, modification of sedimentation. The coastal future: rising sea level, hypoxia, and increased storminess.

0101	Amanda Hall	Seats (Total: 40)
	M 4:15pm - 6:45pm	IRB 2107

GEOG470 **Algorithms for Geospatial Computing**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOG276; or a minimum grade of C- in CMSC330 and CMSC351; or permission of instructor. Cross-listed with: CMSC401. Jointly offered with: GEOG770. Credit only granted for: CMSC498Q, CMSC401, CMSC788I, GEOG470, GEOG498I, GEOG770, or GEOG788I. Formerly: GEOG498I.

An introduction to fundamental geospatial objects and geometric algorithms for spatio-temporal data processing and analysis. Point data representation and analysis: spatial data models and data structures, algorithms for spatial queries, point clustering algorithms. Surface and scalar field modeling, such as terrains: raster and triangle-based models (TINs), algorithms for building and querying TINs. Algorithms for natural and urban terrain analysis: morphology computation and visibility analysis. Applications to processing and analysis of LiDAR (Light Detection And Ranging) data in the context of terrain reconstruction, urban modeling, forest management and bathymetry reconstruction for coastal data management. Road network computation and analysis: algorithms for route computation in road networks, and for road network reconstruction from GPS and satellite data.

0101	Leila De Floriani	Seats (Total: 15)
	TuTh 12:30pm - 1:45pm	LEF 2166

GEOG472 **Remote Sensing: Digital Processing and Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOG272 and GEOG306; or students who have taken courses with comparable content may contact the department.

Digital image processing and analysis applied to satellite and aircraft land remote sensing data. Consideration is given to image preprocessing techniques including radiometric calibration, geometric registration as well as atmospheric correction. Analysis methods include digital image exploration, feature extraction, thematic classification, change detection, and biophysical characterization. An application-oriented course project will be completed through the self-guided computer labs.

Students must pay a $40.00 lab materials fee. Restriction: Open to GOEG, GIS, & ENSP-Coastal, Land Use, Global majors, or GIS and Remote Sensing minors only.

0101	Evan Ellicott	Seats (Total: 25)	
	TuTh 9:30am - 10:45am Th 11:00am - 12:50pm	LEF 1158 LEF 1136	Lab

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GEOG473 **Geographic Information Systems and Spatial Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOG306 and GEOG373; or students who have taken courses with comparable content may contact the department. Credit only granted for: GEOG473 or GEOG482. Formerly: GEOG482.

Analytical uses of geographic information systems; data models for building geographic data bases; types of geographic data and spatial problems; practical experience using advanced software for thematic domains such as terrain analysis, land suitability modeling, demographic analysis, and transportation studies.

Students must pay a $40.00 lab materials fee.

0101	Naijun Zhou	Seats (Total: 25)	
	MW 10:00am - 10:50am F 11:00am - 12:50pm	TYD 0102 LEF 1138	Lab
0102	Naijun Zhou	Seats (Total: 25)	
	MW 10:00am - 10:50am F 1:00pm - 2:50pm	TYD 0102 LEF 1138	Lab
	Restriction: Open to GEOG, GIS, & ENSP-Coastal, Land Use, Global majors or GIS minors only.		

GEOG498 **Topical Investigations**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Independent study under individual guidance.

Contact department for information to register for this course.

GEOG603 **Masters Research Tutorial**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: GEOG600. Restriction: Permission of BSOS-Geography department. Credit only granted for: GEOG603 or GEOG610. Formerly: GEOG610.

Development of Masters scholarly paper topic, critical literature review, formulation of geographical approach to research methodology. Individual meetings with faculty. Comprehensive exam before the end of the semester.

Contact department for information to register for this course.

GEOG606 **Quantitative Spatial Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: GEOG305; or permission of BSOS-Geography department. Credit only granted for: GEOG605 or GEOG606. Formerly: GEOG605.

Multivariate statistical method applications to spatial problems. Linear and non-linear correlation and regression, factor analysis, cluster analysis. Spatial statistics including: trend surfaces, sequences, point distributions. Applications orientation.

0101	Giovanni Baiocchi	Seats (Total: 24)
	Tu 4:00pm - 6:30pm	LEF 1171

GEOG608 **Comprehensive Portfolio Assessment Summary**

Credits: 1-3 Grading Method: Sat-Fail

Evaluation of a PhD student's portfolio.

Contact department for information to register for this course.

GEOG630 **Climate, Energy, and Policy**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: Permission of BSOS-Geography department; or enrolled in the Geographical Sciences Graduate Program(s). Credit only granted for: GEOG430, GEOG630, or GEOG788E. Formerly: GEOG788E. Additional information: This course will make occasional use of the popular open source statistical computer language R for practical workshops.

Students will learn about climate change and energy policy from multiple perspectives including social economic, technological, scientific, and behavioural aspects and their interdependence. The course will also consider the report of the Intergovernmental Panel on Climate Change on mitigation and applied cost/benefit analysis of Climate Change.

0101	Giovanni Baiocchi	Seats (Total: 25)
	W 5:00pm - 7:30pm	LEF 2166

GEOG646 **Programming for GIS**

Credits: 3 Grading Method: Regular, Audit

Additional information: This class is recommended for all MSGIS students who have no prior computer programming background as well as those who wish to have additional practice. The skills learned in this class will be useful for more advanced courses such as GEOG656 (Programming and Scripting for GIS), GEOG657 (Web Programming), and GEOG650 (Mobile GIS).

An introduction to computer programming using Python and web programming languages. It is required for students in the MSGIS program before they enroll in more advanced programming courses (GEOG656 and GEOG657). This course teaches students the fundamentals concepts of computer science. Students will learn about the components of a computer program such as data management, conditional statements, iterative statements, and file processing. Students will develop programs and web apps for the purpose of automating tasks and assisting with data analysis.

PGI1	Jonathan Resop	Seats (Total: 25)	
	Meets February 28, 2022 - May 18, 2022		
	M 5:30pm - 8:00pm	LEF 1158	
	Tu 5:30pm - 8:00pm	LEF 1158	Lab
	Must be in Graduate Programs in Geospatial Intelligence.		
PGS1	Jonathan Resop	Seats (Total: 25)	
	Meets February 28, 2022 - May 18, 2022		
	M 5:30pm - 8:00pm	LEF 1158	
	Tu 5:30pm - 8:00pm	LEF 1158	Lab
	Must be in Graduate Programs in Geospatial Information Sciences.		
PLG1	Jonathan Resop	Seats (Total: 15)	
	Meets February 28, 2022 - May 18, 2022		
	M 5:30pm - 8:00pm	ONLINE	
	Tu 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences, Online.		

PLI1	Jonathan Resop	Seats (Total: 15)	
	Meets February 28, 2022 - May 18, 2022		
	M 5:30pm - 8:00pm	ONLINE	
	Tu 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Intelligence, Online.		

GEOG651 **Spatial Statistics**

Credits: 3 Grading Method: Regular

Restriction: Must be in Geospatial Information Sciences (Master's) program; or must be in Graduate Certificate: Professional Studies-Geospatial Information Sciences.

This course is about quantitative analysis of spatial data. It is intended to provide a broad survey of various methods of exploratory statistical data analysis most useful in environmental and social sciences. The course is a mix of theory, methods, and applications geared towards helping students: (1) develop an understanding of the important theoretical concepts in spatial data analysis; and (2) gain practical experience in application of spatial statistics to a variety of social and environmental problems using advanced statistical software.

Contact department for information to register for this course.

GEOG653 **Spatial Analysis**

Credits: 3 Grading Method: Regular

Prerequisite: GEOG579; or students who have taken courses with comparable content may contact the department. Restriction: Must be in Geospatial Information Sciences (Master's) program; or must be in the Geospatial Information Sciences (Graduate Certificate) program.

Methods of spatial analysis including measuring aspects of geometric features and identifying spatial patterns of geospatial objects that are represented as point, line, network, areal data, and 3-D surfaces.

Students must pay a $40 lab fee.

PGS1	Jianguo Ma	Seats (Total: 25)	
	Meets February 28, 2022 - May 18, 2022		
	W 5:30pm - 8:00pm	LEF 1158	
	Th 5:30pm - 8:00pm	LEF 1158	Lab
	Must be in Graduate Programs in Geospatial Information Sciences.		

PLG1	Jianguo Ma	Seats (Total: 15)	
	Meets February 28, 2022 - May 18, 2022		
	W 5:30pm - 8:00pm	ONLINE	
	Th 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences, Online.		

GEOG654 **GIS and Spatial Modeling**

Credits: 3 Grading Method: Regular

Prerequisite: GEOG653. Restriction: Must be in Geospatial Information Sciences (Master's) program; or must be in Graduate Certificate: Professional Studies-Geospatial Information Sciences.

Provide foundations and understanding on various issues related to modeling and simulation in GIS context. It will addresses the concepts, tools, and techniques of GIS modeling, and presents modeling concepts and theory as well as provides opportunities for hands-on model design, construction, and application. The focus will be on raster-based modeling. This course is also application-orientated, particularly in these fields such as terrain modeling, LULC modeling, hydrological modeling, suitability modeling, etc.

Students must pay a $40 lab fee.

PGS1	Jonathan Resop	Seats (Total: 25)	
	Meets February 28, 2022 - May 18, 2022		
	W 10:00am - 12:20pm	LEF 1166	
	W 12:30pm - 2:30pm	LEF 1166	Lab
	Must be in Graduate Programs in Geospatial Information Sciences.		
PLG1	Jonathan Resop	Seats (Total: 25)	
	Meets February 28, 2022 - May 18, 2022		
	W 10:00am - 12:30pm	ONLINE	
	W 12:30pm - 2:30pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences, Online.		
PLG2	Jonathan Resop	Seats (Total: 15)	
	Meets February 28, 2022 - May 18, 2022		
	W 10:00am - 12:30pm	ONLINE	
	W 12:30pm - 2:30pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences, Online NOAA cohort.		

GEOG655 **Spatial Database System**

Credits: 3 Grading Method: Regular

Prerequisite: GEOG653. Restriction: Must be in Geospatial Information Sciences (Master's) program; or must be in Graduate Certificate: Professional Studies-Geospatial Information Sciences.

This course is designed to help students understand, analyze, design, and implement spatial databases. While the basic concepts and theories of database will be introduced, the focus of this course will be on providing students with hands-on experiences to practice the technical skills used in spatial database design and implementation. SQL, Oracle, and ArcSDE are the key topics.

Students must pay a $40 lab fee.

PGS1	Ritvik Sahajpal	Seats (Total: 25)	
	Meets February 28, 2022 - May 18, 2022		
	W 5:30pm - 7:30pm	LEF 1220	
	Th 5:30pm - 7:30pm	LEF 1220	Lab
	Must be in Graduate Programs in Geospatial Information Sciences.		
PLG1	Ritvik Sahajpal	Seats (Total: 25)	
	Meets February 28, 2022 - May 18, 2022		
	W 5:30pm - 7:30pm	ONLINE	
	Th 5:30pm - 7:30pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences, Online.		

GEOG661 Fundamentals of Geospatial Intelligence

Credits: 3 Grading Method: Regular, Sat-Fail

Geospatial Intelligence (GEOINT) is the collection, analysis, visualization and dissemination of geospatial information to support decision-making. This course introduces the fundamental knowledge required to become a successful GEOINT practitioner, including the history of the GEOINT discipline, the intelligence applications of remote sensing and Geographic Information Systems (GIS) technologies, and how GEOINT products are used to support national security and humanitarian missions. Upon completion of this course you will understand the roles that technology, policy, doctrine, government, and industry play in shaping the Geospatial Intelligence discipline, and develop the technical knowledge and domain expertise to create basic GEOINT products that provide context for decision makers.

PGI1	David Cook	Seats (Total: 25)	
	Meets February 28, 2022 - May 18, 2022		
	M 5:30pm - 8:00pm	LEF 1106	
	Tu 5:30pm - 8:00pm	LEF 1106	Lab
	Must be in Graduate Programs in Geospatial Intelligence.		

PGS1	David Cook	Seats (Total: 25)	
	Meets February 28, 2022 - May 18, 2022		
	M 5:30pm - 8:00pm	LEF 1106	
	Tu 5:30pm - 8:00pm	LEF 1106	Lab
	Must be in Graduate Programs in Geospatial Information Sciences.		
PLG1	David Cook	Seats (Total: 15)	
	Meets February 28, 2022 - May 18, 2022		
	M 5:30pm - 8:00pm	ONLINE	
	Tu 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences, Online.		
PLI1	David Cook	Seats (Total: 15)	
	Meets February 28, 2022 - May 18, 2022		
	M 5:30pm - 8:00pm	ONLINE	
	Tu 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Intelligence, Online.		

GEOG670 **Open Source GIS**

Credits: 3 Grading Method: Regular

Credit only granted for: GEOG670 or GEOG788A. Formerly: GEOG788A. Additional information: Students do not need any experience using open source GIS, but students are expected to be comfortable using a desktop GIS such as ArcGIS.

An exploration of techniques for using Free and Open Source Software for GIS (FOSS4g) from conception to final presentation of results. Advanced concepts and techniques including enterprise GIS, spatial SQL, parallel processing, and displaying the results of GIS analysis over the Internet will also be covered.

PGS1	Hannah Kerner	Seats (Total: 25)	
	Meets February 28, 2022 - May 18, 2022		
	M 5:30pm - 8:00pm	LEF 1201	
	Tu 5:30pm - 8:00pm	LEF 1201	Lab
	Must be in Graduate Programs in Geospatial Information Sciences.		

PLG1	Hannah Kerner	Seats (Total: 20)	
	Meets February 28, 2022 - May 18, 2022		
	M 5:30pm - 8:00pm	ONLINE	
	Tu 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences, Online.		

GEOG683 **Hazards and Emergency Management**

Credits: 3 Grading Method: Regular

Timely and accurate Geospatial Intelligence (GEOINT) is essential for protecting people from hazardous events such as floods, wildfires, tsunamis, hurricanes, industrial accidents, and terrorist attacks. GEOINT plays a critical role in all four stages of emergency management: preparedness, mitigation, response, and recovery. The use of remote sensing and Geographic Information Systems (GIS) before, during, and after Hurricane Katrina and the 9/11 terror attacks are two of the case studies that are discussed during this course. You will develop a deeper understanding of the emergency management successes and failures that occurred during these historic and deadly events, and learn the technical skills to develop and disseminate GEOINT products that support decision-making at all four stages of emergency management.

Students must pay a $40 lab fee.

PGI1	Jonathon Hathaway	Seats (Total: 25)	
	Meets February 28, 2022 - May 18, 2022		
	W 5:30pm - 8:00pm	LEF 1106	
	Th 5:30pm - 8:00pm	LEF 1106	Lab
	Must be in Graduate Programs in Geospatial Intelligence.		
PLI1	Jonathon Hathaway	Seats (Total: 15)	
	Meets February 28, 2022 - May 18, 2022		
	W 5:30pm - 8:00pm	ONLINE	
	Th 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Intelligence, Online.		

GEOG685 **Machine Learning and Data Mining**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: GEOG665 or equivalent.

Introduces statistical and spatial analysis over machine learning in mining data sets (and tackling big data problems), primarily in geography and spatial sciences, but with broader appeal throughout the socio-behavioral sciences. Students will be introduced to a range of methods that can be applied to the exploration, modeling, and visualization of big quantitative data. This course explores data cleaning, statistical analysis, and data-mining for geospatial and non-geospatial data in structured and unstructured form, with an emphasis on large silos of data across diverse sources and assumptions. Topics will include open sourcing, metadata schemes, data standards and models, data-access, data-mining, clustering methods, classifiers, data reduction, machine learning, filtering schemes, real-time and streaming data, archiving and preservation, and handling uncertainty.

PGI1	Ruibo Han	Seats (Total: 25)	
	Meets February 28, 2022 - May 18, 2022		
	M 5:30pm - 8:00pm	LEF 1222	
	Tu 5:30pm - 8:00pm	LEF 1222	Lab
	Must be in Graduate Programs in Geospatial Intelligence.		
PGS1	Ruibo Han	Seats (Total: 25)	
	Meets February 28, 2022 - May 18, 2022		
	M 5:30pm - 8:00pm	LEF 1222	
	Tu 5:30pm - 8:00pm	LEF 1222	Lab
	Must be in Graduate Programs in Geospatial Information Sciences.		
PLG1	Ruibo Han	Seats (Total: 15)	
	Meets February 28, 2022 - May 18, 2022		
	M 5:30pm - 8:00pm	ONLINE	
	Tu 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences, Online.		
PLI1	Ruibo Han	Seats (Total: 15)	
	Meets February 28, 2022 - May 18, 2022		
	M 5:30pm - 8:00pm	ONLINE	
	Tu 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Intelligence, Online.		

GEOG732 **Spatial Econometrics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Permission of BSOS-Geography department. Jointly offered with: GEOG432. Credit only granted for: GEOG432 or GEOG732.

An introduction to modern econometric techniques in general and spatial econometrics in particular, using the popular open source statistical computer language R. A focus on using statistical computing to produce analytical reports for real-world applications, research papers, and dissertations.

0101	Laixiang Sun	Seats (Total: 24)
	M 4:45pm - 7:15pm	LEF 1171

GEOG770 **Algorithms for Geospatial Computing**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: GEOG276 or permission of instructor. Jointly offered with: GEOG470. Credit only granted for: CMSC498Q, CMSC401, CMSC788I, GEOG470, GEOG498I, GEOG770, or GEOG788I. Formerly: GEOG788I.

Geometric primitives and algorithms for discrete and continuous spatial data processing. Point data representation and analysis: spatial data structures, neighbor finding and range queries, clustering algorithms. Terrain modeling: grids and TINs, algorithms and data structures for building and querying TINs, gridding and interpolation. Terrain analysis: segmentation through watershed computation, algorithms for visibility computation. Applications to LiDAR data processing and analysis for forest management, urban modeling, and coastal data mapping.

0101	Leila De Floriani	Seats (Total: 15)
	TuTh 12:30pm - 1:45pm	LEF 2166

GEOG788 **Selected Topics in Geography**

(Perm req)

Credits: 1-3 Grading Method: Regular

Readings and discussion on selected topics in the field of geography.

Repeatable to 6 credits if content differs.

Contact department for information to register for this course.

GEOG788F **Selected Topics in Geography; Deforestation, Land Grab, and Global Commodity Chains**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Readings and discussion on selected topics in the field of geography.

In today s globalized world, national, regional, and local economies are intensely interlinked through global supply chains. Extraction of raw materials, manufacturing of products and assembly to final products and consumption are increasingly met by global supply chains that often involve large geographical distances and lead to global environmental change, such as climate change, water scarcity and deforestation and other land cover change, all impacting important ecosystem services. This development has been driven by a change in the level and composition of international trade. This course will explore 1) major trends of commodity trade in different regions of the world; 2) existing global trade database; 3) environmental accounting approaches and models, such as environmental Input-output analysis and life-cycle analysis; 4) social and economic drivers of local, regional and global land cover and land use change with regard to land displacement and deforestation.

0101	Kuishuang Feng	Seats (Total: 25)
	W 2:00pm - 4:30pm	LEF 0135

GEOG788T **Selected Topics in Geography; Deep Learning for Spatial and Spatio-Temporal Data**

Credits: 3 Grading Method: Regular, Audit

Readings and discussion on selected topics in the field of geography.

Introduction to deep learning and its uses in spatio-temporal problems and applications. A variety of network types will be discussed, including densely-connected networks, convolutional neural networks, graph convolutional networks, recurrent and gated networks, generative adversarial networks, Siamese networks, etc. The discussion will also include related topics on meta-learning, reinforcement learning, spatial-explicit frameworks, knowledge-guided formulations, etc. The techniques will be discussed in the context of spatial and spatio-temporal data for applications including Earth observation (e.g.,change detection, land-cover classification, geospatial object detection), COVID-19 mobility estimation, traffic accident prediction, and more. The course will also cover implementation using Python. Students will carry out projects based on their own research topics or interests, and the projects can be either applied (existing methods on new data) or technically innovative (improving existing methods).

0101	Yiqun Xie	Seats (Total: 25)
	M 2:00pm - 4:30pm	LEF 1158

GEOG789 **Independent Readings**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Independent reading as arranged between a graduate faculty member and graduate student.

Repeatable to 6 credits if content differs.

Contact department for information to register for this course.

GEOG790 **Internship in Geography**

Credits: 3 Grading Method: Regular, Audit

Field experience in the student's specialty in a Federal, state, or local agency or private business. Research paper required.

Contact department for information to register for this course.

GEOG797 Professional Project

Credits: 3 Grading Method: Regular

Restriction: Must be in Geospatial Information Sciences (Master's) program.

Data and materials can originate from an internship (internal or external) or from relevant work experience with current employer. Under direction of faculty advisor, students will prepare a project report containing explanation of the requirements for the work, technical account of the activities undertaken, including literature review, description of methods and approaches taken, a critical discussion of results, along with conclusions and recommendations developed from the project. Final project will consist of a full-fledged GIS application that is up and running and can be tested, providing potential employers with a portfolio demonstrating student's ability to manage and develop a GIS application in real world situations.

Students must pay a $40 lab fee.

PGI1	Rejanne Le Bivic	Seats (Total: 10)	
	Meets February 28, 2022 - May 18, 2022		
	M 5:30pm - 8:00pm	LEF 1166	
	Tu 5:30pm - 8:00pm	LEF 1166	Lab
	Must be in Graduate Programs in Geospatial Intelligence.		
PGS1	Rejanne Le Bivic	Seats (Total: 15)	
	Meets February 28, 2022 - May 18, 2022		
	M 5:30pm - 8:00pm	LEF 1166	
	Tu 5:30pm - 8:00pm	LEF 1166	Lab
	Must be in Graduate Programs in Geospatial Information Sciences.		
PLG1	Rejanne Le Bivic	Seats (Total: 15)	
	Meets February 28, 2022 - May 18, 2022		
	M 5:30pm - 8:00pm	ONLINE	
	Tu 5:30pm - 8:00pm	ONLINE	Discussion
	Must be in Graduate Programs in Geospatial Information Sciences, Online.		

PLI1	Rejanne Le Bivic	Seats (Total: 10)	
	Meets February 28, 2022 - May 18, 2022		
	M 5:30pm - 8:00pm	ONLINE	
	Tu 5:30pm - 8:00pm	ONLINE	Discussion
	Must be in Graduate Programs in Geospatial Intelligence, Online.		

GEOG798 **Selected Topics in Geography: Seminar Series; Seminar Series**

Credits: 1 Grading Method: Regular, Audit

Readings and discussions on selected topics in the field of geography.

0101	Tatiana Loboda	Seats (Total: 48)
	Th 3:45pm - 5:15pm	ONLINE

GEOG799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

GEOG898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

GEOG899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

GEOL Geology Spring 2022

GEOL100 **Physical Geology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSNL (if taken with GEOL110), DSNS

Credit only granted for: GEOL100 or GEOL120. Additional information: CORE Distributive Studies Physical Science Laboratory Course only when taken concurrently with GEOL 110.

A general survey of the rocks and minerals composing the earth, its surface features and the agents that form them, and the dynamic forces of plate tectonics.

0101	Tracey Centorbi MWF 1:00pm - 1:50pm	Seats (Total: 95) TWS 0310	
0201	Nicholas Schmerr TuTh 2:00pm - 3:15pm	Seats (Total: 95) ARM 0131	

GEOL102 **Historical Geology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOL120 or GEOL100; and GEOL110. Or permission of CMNS-Geology department.

Earth's history as revealed through the principles of stratigraphy and the processes of physical geology. Emphasis on formations and geologic development of the North American continent.

0101	Thomas Holtz MWF 9:00am - 9:50am W 2:00pm - 5:00pm	Seats (Total: 24) PLS 1146 GEO 2107	 Lab

GEOL110 **Physical Geology Laboratory**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: Must have completed or be concurrently enrolled in GEOL120 or GEOL100. Additional information: CORE Distributive Studies Physical Science Laboratory Course only when taken concurrently with GEOL 100.

The basic materials and tools of physical geology stressing familiarization with rocks and minerals and the use of maps in geologic interpretations.

Students must pay a $50.00 lab materials fee.

0101	James Bader, Tracey Centorbi M 3:00pm - 6:00pm	Seats (Total: 24) GEO 2106	 Lab
0201	Goeun Ha, Tracey Centorbi M 12:00pm - 3:00pm	Seats (Total: 24) GEO 2106	 Lab
0301	Kiran Almas, Tracey Centorbi Tu 9:00am - 12:00pm	Seats (Total: 24) GEO 2106	 Lab

0401	Tracey Centorbi, Karla Nunez Tu 4:00pm - 7:00pm	Seats (Total: 24) GEO 2106	Lab
0501	Kiran Almas, Tracey Centorbi Th 9:00am - 12:00pm	Seats (Total: 24) GEO 2106	Lab
0601	Goeun Ha, Tracey Centorbi Th 4:00pm - 7:00pm	Seats (Total: 24) GEO 2106	Lab
0901	Tracey Centorbi, James Bader W 3:00pm - 6:00pm	Seats (Total: 24) GEO 2106	Lab

GEOL120 **Environmental Geology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: PS | General Education: DSNL (if taken with GEOL110), DSNS

Credit only granted for: GEOL100 or GEOL120.

A review of geologic factors underlying many environmental problems and the interactions between population and physical environment: geologic hazards, land-use planning, conservation, mineral resources, waste disposal, land reclamation, and the geologic aspects of health and disease. The course is aimed at lower division students in education and liberal arts, and should be useful to any student concerned with geologic perspectives of environmental problems.

0201	Sujay Kaushal TuTh 3:30pm - 4:45pm W 3:00pm - 3:50pm	Seats (Total: 20) CHE 2110 PLS 1162	Discussion
0202	Sujay Kaushal TuTh 3:30pm - 4:45pm W 4:00pm - 4:50pm	Seats (Total: 20) CHE 2110 PLS 1162	Discussion
0203	Sujay Kaushal TuTh 3:30pm - 4:45pm W 5:00pm - 5:50pm	Seats (Total: 20) CHE 2110 PLS 1162	Discussion
0204	Sujay Kaushal TuTh 3:30pm - 4:45pm W 3:00pm - 3:50pm	Seats (Total: 20) CHE 2110 PLS 1168	Discussion

0205	Sujay Kaushal TuTh 3:30pm - 4:45pm W 4:00pm - 4:50pm	Seats (Total: 20) CHE 2110 PLS 1168	Discussion
0206	Sujay Kaushal TuTh 3:30pm - 4:45pm W 5:00pm - 5:50pm	Seats (Total: 20) CHE 2110 PLS 1168	Discussion

GEOL123 **Causes and Consequences of Global Change**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: PS | General Education: DSNS, SCIS

Cross-listed with: AOSC123. Credit only granted for: AOSC123, GEOG123, GEOL123, or METO123.

Study of the major components of Earth's climate system and climate change history. Discussion of 21st century climate change prediction, mitigation and adaptation efforts.

0101	Rachel Pinker MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 30) ATL 2324 EGR 2154	Discussion
0102	Rachel Pinker MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 30) ATL 2324 EGR 2154	Discussion
0103	Rachel Pinker MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 30) ATL 2324 EGR 2154	Discussion

GEOL204 **Dinosaurs, Early Humans, Ancestors, and Evolution; The Fossil Record of Vanished Worlds of the Prehistoric Past**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: PS | General Education: DSNS, SCIS

Examination of evidence used to reconstruct critical events in the history of life by looking at case studies of significant evolutionary origins, transitions, and extinctions; addressing the role of paleontology in human society, including science education, conservation, and the media.

0101	Thomas Holtz TuTh 9:30am - 10:45am M 3:00pm - 3:50pm	Seats (Total: 20) TWS 0320 PLS 1172	Discussion

0102	Thomas Holtz TuTh 9:30am - 10:45am M 4:00pm - 4:50pm	Seats (Total: 18) TWS 0320 PLS 1172	Discussion
0103	Thomas Holtz TuTh 9:30am - 10:45am M 5:00pm - 5:50pm	Seats (Total: 18) TWS 0320 PLS 1172	Discussion
0104	Thomas Holtz TuTh 9:30am - 10:45am M 3:00pm - 3:50pm	Seats (Total: 18) TWS 0320 PLS 1164	Discussion
0105	Thomas Holtz TuTh 9:30am - 10:45am M 4:00pm - 4:50pm	Seats (Total: 18) TWS 0320 PLS 1164	Discussion
0106	Thomas Holtz TuTh 9:30am - 10:45am M 5:00pm - 5:50pm	Seats (Total: 18) TWS 0320 PLS 1164	Discussion

GEOL322 **Mineralogy**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOL120 or GEOL100; and GEOL110. And CHEM131 and CHEM132; or (CHEM135 and CHEM136); or CHEM103. Restriction: Permission of instructor is required for non-degree seeking students.

Basic mineralogy for geology majors. The principles of morphologic crystallography, crystal chemistry, and determinative mineralogy.

0101	Megan Newcombe TuTh 11:00am - 12:15pm M 1:00pm - 3:50pm	Seats (Total: 22) PLS 1162 GEO 2107	Lab

GEOL340 **Geomorphology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOL120 or GEOL100. Restriction: Permission of instructor is required of non-degree seeking students.

Analysis of landforms, organized on the basis of the geologic processes that have operated during the late Cenozoic. Constructional and erosional landforms related to physical systems operating on geologic structures through time.

0101	Karen Prestegaard	Seats (Total: 24)	
	TuTh 9:30am - 10:45am W 10:00am - 1:00pm	JMZ 0125 GEO 2107	Lab

GEOL341 **Structural Geology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOL120 or GEOL100; and GEOL102; and GEOL110. Or permission of CMNS-Geology department. Restriction: Permission of instructor is required of non-degree seeking students.

Study of the deformation of Earth's lithosphere, especially stress, rheology, strain, and the origin and significance of structural features. Development of 3-dimensional thinking through drafting and drawing of structures, construction of geologic maps and cross-sections, and stereographic and orthographic representation of structures. Improvement of scientific writing. Two weekend field trips.

0101	Mong-Han Huang	Seats (Total: 20)	
	MWF 9:00am - 9:50am M 10:00am - 1:00pm	PLS 1172 GEO 2107	Lab

GEOL391 **Biology of Extinct Animals**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI160 and BSCI161; or BSCI106. Cross-listed with: BSCI392. Credit only granted for: GEOL391 or BSCI392.

A survey of extinct animals that have few, if any, direct living descendants. The principles governing the functional design of animals will be used to infer life styles for extinct, and frequently bizarre, organisms.

0101	John Merck	Seats (Total: 65)	
	MWF 10:00am - 10:50am	PLS 1130	

GEOL392 **Biology of Extinct Animals Laboratory**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in BSCI392. Cross-listed with: BSCI393. Credit only granted for: GEOL392 or BSCI393.

An overview of the techniques used in paleobiological reconstructions of extinct animals.

0101	John Merck	Seats (Total: 24)	
	W 2:00pm - 4:50pm	PLS 1161	Lab

GEOL393 **Geology Senior Thesis I: Proposal**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: PHYS141 or (PHYS161 and PHYS174); and MATH141; and (CHEM131 and CHEM132) or (CHEM135 and CHEM136); and must have completed at least two upper-level geology courses and be concurrently enrolled in a third. Restriction: Junior standing or higher; and must be in Geology program.

The first semester of the two-semester Geology Senior Thesis. Emphasis is on developing a plan for original research in the geosciences and presenting that plan both in writing and in public presentations that adhere to geosciences professional standards.

0101	Philip Piccoli	Seats (Total: 10)
	Tu 4:30pm - 6:30pm Contact instructor or department for details.	EGR 1110

GEOL394 **Geology Senior Thesis II: Research**

(Perm req)

Credits: 3 Grading Method: Regular CORE: CS General Education: DSSP

Prerequisite: GEOL393; and must have completed at least three upper level GEOL courses. Restriction: Must be in Geology program; and junior standing or higher.

The second semester of the two-semester Geology Senior Thesis. Investigation of specific original research question in geosciences. Emphasis is on completion of original research proposed in GEOL393 and presentation of results both in writing and in public presentations that adhere to geosciences professional standards.

Contact department for information to register for this course.

GEOL412 **Geology of the Terrestrial Planets**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOL341 or GEOL340. Credit only granted for: GEOL489A or GEOL412. Formerly: GEOL489A.

Geological features of Mercury, Venus, Mars and the Moon with an emphasis on results from recent NASA planetary mission. Topics include interior structure, impact cratering, tectonic and volcanic history, surface conditions, climate change, and habitability.

0101	Laurent Montesi	Seats (Total: 10)	
	TuTh 9:30am - 10:45am	CCC 1200	

GEOL437 **Global Climate Change: Past and Present**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH115 or MATH140; and (GEOL100 or GEOL120); and (CHEM131 or CHEM135); and (CHEM132 or CHEM136).

Introduction to the processes by which climate varies, the paleoclimate record, and projections of climate change into the 21st century, including discussion of climate sensitivity to external radiative forcing.

0101	Michael Evans	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm	PLS 1164	

GEOL443 **Petrology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOL322. And CHEM131 and CHEM132; or (CHEM135 and CHEM136); or CHEM103. And must have completed or be concurrently enrolled in GEOL423; and (GEOL100 or GEOL120); and GEOL110. Corequisite: Permission of CMNS-Geology department. Restriction: Non-degree-seeking students require the permission of the instructor.

Study of igneous and metamorphic rocks: petrogenesis, distributions, chemical and mineralogical relations, macroscopic and microscopic descriptions, geologic significance.

0101	Richard Walker, Sarah Penniston-Dorland	Seats (Total: 18)	
	TuTh 8:00am - 9:15am	PLS 1113	
	Th 1:00pm - 4:00pm	GEO 2117	Lab

GEOL445 **High Temperature Geochemistry**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOL322, GEOL100, and MATH115. And CHEM131 and CHEM132; or (CHEM135 and CHEM136); or CHEM103. Restriction: Non-degree-seeking students require the permission of the instructor.

Review of chemical principles and their use in understanding processes of Earth, and solar system formation and differentiation. Topics include nucleosynthesis and cosmochemical abundances of elements, bonding and element partitioning, equilibrium thermodynamics and phase stabilities, radiogenic isotopes and geochronology, kinetics, and diffusion.

0101	Ricardo Arevalo	Seats (Total: 20)	
	TuTh 12:30pm - 1:45pm	ATL 2352	
	Th 2:00pm - 4:45pm	CHM 0215	Lab

GEOL447 **Observational Geophysics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH140 and MATH141; and (PHYS141, PHYS161, or PHYS171).

An introduction to practical signal processing, data analysis, and inverse theory in geophysics.

0101	Vedran Lekic	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	PLS 1129

GEOL456 **Engineering Geology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS141 and MATH141; and (GEOL120 or GEOL100). Or permission of CMNS-Geology department. Restriction: Non-degree-seeking students require the permission of the instructor. Credit only granted for: GEOL456 or GEOL489Z. Formerly: GEOL489Z.

An overview of engineering geology with an emphasis on physical understanding of natural hazards and natural resources. General theories of stress and strain, failure criteria, frictional stability, fluid flow in porous media and poroelasticity are introduced. Quantitative approaches on earthquakes, landslides, land subsidence, and geotechnical aspects of oil/gas exploration are discussed.

0101	Wenlu Zhu	Seats (Total: 10)
	TuTh 8:00am - 9:15am	BPS 1238

GEOL457 **Seismology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOL120 or GEOL100; and (MATH141, GEOL110, and MATH140). Or permission of CMNS-Geology department. Recommended: PHYS171, PHYS141, or PHYS161. Restriction: Non-degree-seeking students require the permission of the instructor. Credit only granted for: GEOL457 or GEOL489A. Formerly: GEOL489A.

General overview of the basics of seismology, starting with wave propagation, seismic reflection and refraction. Applications to the determination of the seismic velocity and anisotropy structure of the Earth. Earthquake generation, postseismic deformation and creep events, relation to faulting and plate tectonics.

0101	Nicholas Schmerr	Seats (Total: 10)
	TuTh 11:00am - 12:15pm	HBK 0302H

GEOL488 **Geology Colloquium; Geology Colloquium**

Credits: 1 Grading Method: Sat-Fail

Contemporary research topics and issues in geosciences are explored through the weekly Geology departmental colloquium and discussion of its contents.

0101	Megan Newcombe	Seats (Total: 30)
	F 3:00pm - 4:00pm	Location: TBA

GEOL497 **Recent Advances: Geology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed at least 2 upper-level GEOL courses. Corequisite: GEOL393; and a third upper-level geology course. Restriction: Must be in Geology program; and GPA of 3.0 or better in both overall and in all courses required for the major; and senior standing; and to be taken as late as possible in the program. Credit only granted for: GEOL497 or GEOL489H. Formerly: GEOL489H.

A survey of important recent advances in geological sciences in the context of the methods and practices of scientific research.

0101	Michael Brown	Seats (Total: 10)	
	W 8:00am - 8:50am	Location: TBA	
	F 3:00pm - 4:00pm	Location: TBA	
	M 2:00pm - 3:40pm	Location: TBA	Discussion

GEOL497H **Recent Advances: Geology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed at least 2 upper-level GEOL courses. Corequisite: GEOL393; and a third upper-level geology course. Restriction: Must be in Geology program; and GPA of 3.0 or better in both overall and in all courses required for the major; and senior standing; and to be taken as late as possible in the program. Credit only granted for: GEOL497 or GEOL489H. Formerly: GEOL489H.

A survey of important recent advances in geological sciences in the context of the methods and practices of scientific research.

0101	Michael Brown	Seats (Total: 10)	
	W 8:00am - 8:50am	PLS 1115	
	F 3:00pm - 4:00pm	Location: TBA	
	M 2:00pm - 3:40pm	PLS 1115	Discussion

GEOL499 **Special Problems in Geology**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Intensive study of a special geologic subject or technique selected after consultation with instructor. Intended to provide training or instruction not available in other courses which will aid the student's development in his or her field of major interest.

Prerequisites: GEOL100 or GEO120, GEOL110, GEOL102; or equivalent; and permission of department. In addition, non-degree-seeking students require the permission of the instructor. Intensive study of a special geologic subject or technique selected after consultation with instructor. Intended to provide training or instruction not available in other courses which will aid the student's development in his or her field of major interest.

Contact department for information to register for this course.

GEOL612 **Geology and Geophysics of the Terrestrial Planets**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Permission of CMNS-Geology department; or (GEOL446 and MATH141). Recommended: Familiarity with MATLAB or MATHEMATICA. Credit only granted for: GEOL680 or GEOL789A. Formerly: GEOL789A.

Geological features of Mercury, Venus, Mars and the Moon with an emphasis on results from recent NASA planetary mission. Class is organized to follow geological processes or observation throughout the inner solar system. Topics covered include interior structure, impact cratering, tectonic and volcanic history, surface conditions and climate change.

0101	Laurent Montesi	Seats (Total: 10)
	TuTh 9:30am - 10:45am	CCC 1200

GEOL615 **Planetary Habitability and Surface Chemistry**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: GEOL445; or permission of instructor. Credit only granted for: GEOL615 or GEOL789B. Formerly: GEOL789B.

Introduction to emerging areas of research pertaining to the formation of planetary bodies, the evolution of habitable environments, and the capacity of life to emerge in environments found within and/or outside of our Solar System.

0101	Ricardo Arevalo	Seats (Total: 10)
	TuTh 11:00am - 12:15pm	JMZ 1123

GEOL647 **Observational Geophysics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MATH140, MATH141, and PHYS141; and (PHYS161 or PHYS171). Credit only granted for: GEOL789O or GEOL647. Formerly: GEOL789O.

Introduces graduate students to instrument design and performance, signal processing, data analysis and inverse theory in geophysics.

0101	Vedran Lekic	Seats (Total: 10)
	TuTh 3:30pm - 4:45pm	PLS 1129

GEOL654 **Fluvial Geomorphology Seminar**

Credits: 3 Grading Method: Regular, Audit

Recommended: GEOL452 and GEOL340. Restriction: Non-degree-seeking students require the permission of the instructor. Credit only granted for: GEOL654 or GEOL789B. Formerly: GEOL789B.

Fluvial geomorphology is the study of the movement of water and sedimentin stream channels. This includes: formation of channels, open channel hydraulics, sediment transport or bedload and suspended load, river morphology and landscape evolution. The course is designed for graduate students and advanced undergraduates.

0101	Karen Prestegaard	Seats (Total: 12)
	Th 4:00pm - 6:30pm	PLS 1168

GEOL656 **Engineering and Environmental Geology**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: GEOL100, GEOL110, MATH141, and PHYS141; or permission of instructor. Restriction: Non-degree-seeking students require the permission of the instructor. Credit only granted for: GEOL656 or GEOL789Z. Formerly: GEOL789Z.

An overview of mechanical aspects of earthquakes as a result of fault instability. Quantitative approaches on soil and rock strength, instability on earthquakes, landslides, land subsidence, and geotechnical aspects of oil/gas exploration are discussed. Emphasis is on theoretical framework of mechanics of earthquake and faulting, earthquake source mechanisms, earthquake scaling relations, the seismic cycle etc.

0101	Wenlu Zhu	Seats (Total: 10)
	TuTh 8:00am - 9:15am	BPS 1238

GEOL657 **Seismic Wave Propagation**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: MATH140 and MATH141; and (PHYS141, PHYS161, or PHYS171); and permission of CMNS-Geology department. Recommended: GEOL100 or GEOL120; and (MATH241 and MATH246); and (PHYS260 or PHYS273). Restriction: Non-degree-seeking students require the permission of the instructor. Credit only granted for: GEOL657 or GEOL789A. Formerly: GEOL789A.

A description of the physics of seismic wave propagation and their applications to the determination of the structure of the Earth and the mechanics of earthquakes.

0101	Nicholas Schmerr	Seats (Total: 10)
	TuTh 11:00am - 12:15pm	HBK 0302H

GEOL680 **Geodynamics**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Permission of CMNS-Geology department; or (MATH241, MATH462, and GEOL446). Recommended: Familiarity with MATLAB or MATHEMATICA. Credit only granted for: GEOL680 or GEOL789J. Formerly: GEOL789J.

The mechanics and dynamics of the Earth's interior and their applications to problems of Geophysics. This course considers several rheological descriptions of Earth materials (brittle, elastic, linear and nonlinear fluids, and viscoelastic) and emphasizes analytical solutions to simplified problem.

0101	Laurent Montesi	Seats (Total: 10)
	TuTh 12:30pm - 1:45pm	Location: TBA

GEOL688 **Geology Colloquium; Geology Colloquium**

Credits: 1 Grading Method: Sat-Fail

Contemporary research topics and issues in geosciences are explored through the weekly Geology departmental colloquium and discussion of its contents.

0101	Megan Newcombe	Seats (Total: 30)
	F 3:00pm - 4:00pm	PLS 1140

GEOL789C **Recent Advances in Geology; Advanced Data Analysis Workshop**

Credits: 2-4 Grading Method: Regular, Audit, Sat-Fail

Recent advances in geology research.

This workshop course is custom designed around students' experimental design, statistical, data and simulation analysis goals. Participants will design and implement a smester-long project, ideally contributing directly to your thesis or dissertation work. Assessment by initial and final project presenations and weekly progress reports. Because of the nature of the course, participation is limited to a maximum of 6 students.

0101	Michael Evans	Seats (Total: 6)
	Tu 2:00pm - 4:45pm	CHM 2223C

GEOL789M **Recent Advances in Geology; Machine Learning in Geoscience**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Recent advances in geology research.

0101	Vedran Lekic	Seats (Total: 10)
	M 2:00pm - 4:30pm	ATL 1410

GEOL789V **Recent Advances in Geology; Remote Sensing in Geoscience**

Credits: 2-4 Grading Method: Regular, Audit, Sat-Fail

Recent advances in geology research.

In this course we discuss basic principles underlying different remote sensing techniques, and how they are applied to geology related applications. This class will introduce satellite data including from Landsat, Envisat, Sentine-1, Sentinel-2, Icesat, SRTM, SMAP, and GRACE. We will also introduce geographic information systems (GIS) in this class and software such as QGIS and Google Earth Engine to present and analyze different remote sensing dataset.

0101	Mong-Han Huang	Seats (Total: 10)
	Th 2:00pm - 4:30pm	PLS 1162

GEOL798 **Seminar in Geology**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Discussion of special topics in current literature in all phases of geology.

Contact department for information to register for this course.

GEOL799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

GEOL898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

GEOL899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

GERM Germanic Studies Spring 2022

GERM103 **Intensive Elementary German**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a fluent/native speaker of German. Credit only granted for: GERS103 or GERM103. Formerly: GERM103.

Covers speaking, reading, writing, listening, and culture of German-speaking world.

0201	Jordan Foster MWF 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 25) JMZ 1224 ONLINE

GERM203 **Intensive Intermediate German**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO

Prerequisite: GERS103; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a fluent/native speaker of German. Credit only granted for: GERM203 or GERS203. Formerly: GERM203.

Covers speaking, reading, writing, listening, and culture of German-speaking world.

0101	Nicholas Brazones MWF 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 25) JMZ 2122 ONLINE

GERM204 **German Grammar Review**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO

Prerequisite: GERS203; or Must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a fluent/native speaker of German. Credit only granted for: GERM204 or GERS204. Formerly: GERM204.

An in-depth study and analysis of selected grammatical topics in a contextualized framework.

0101	Regina Ianozi TuTh 12:30pm - 1:45pm	Seats (Total: 25) JMZ 3205

GERM301 **Conversation and Composition I: The German-Speaking World**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GERS204; or students who have taken courses with comparable content may contact the department. Credit only granted for: GERM301 or GERS301. Formerly: GERM301.

Practice in contemporary spoken and written German. Systematic review of grammar, and exercises in composition. Emphasis on cultural contrasts in the German-speaking world.

0101	Regina Ianozi TuTh 11:00am - 12:15pm	Seats (Total: 20) JMZ 0208

GERM302 **Conversation and Composition II: Current Topics in German-Speaking Society**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GERS301; or students who have taken courses with comparable content may contact the department. Credit only granted for: GERM302 or GERS302. Formerly: GERM302.

Further practice in contemporary spoken and written German. Contemporary social, political, and cultural themes.

0101	Julie Koser	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	JMZ 1103

GERM319G **Selected Topics in German Language Studies; Seminar in German Language**

Credits: 3

Grading Method: Regular, Pass-Fail

The analysis of the German language as a reflection of cultural, functional, and social practice in the German-speaking world.

Contact department for information to register for this course.

GERM320 **Survey of German Studies**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GERS301; or students who have taken courses with comparable content may contact the department. Credit only granted for: GERM320 or GERS320. Formerly: GERM320.

Approaches to analysis of German cultural products such as literature, film, poetry, architecture and works of art. Taught in German.

0101	Josh Alvizu	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	JMZ 3120

GERM320H **Survey of German Studies**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GERS301; or students who have taken courses with comparable content may contact the department. Credit only granted for: GERM320 or GERS320. Formerly: GERM320.

Approaches to analysis of German cultural products such as literature, film, poetry, architecture and works of art. Taught in German.

0101	Josh Alvizu	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	JMZ 3120

GERM356 **German for the Professions**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GERS301. Credit only granted for: GERM319B, GERM356 or GERS356. Formerly: GERM356.

An examination of the structures and work conditions of various industries in the German-speaking world including understanding and navigating company culture, professional development, and preparation for an internship or job where German is spoken.

0101	Regina Ianozi	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	JMZ 0103

GERM369A **Special Topics in Study Abroad III; Advanced German I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GERM369B **Special Topics in Study Abroad III; Advanced German II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GERM369C **Special Topics in Study Abroad III; German Composition I**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GERM369D **Special Topics in Study Abroad III; German Composition II**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GERM369L **Special Topics in Study Abroad III; Contemporary German Literature**

Credits: 1-2 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GERM369P **Special Topics in Study Abroad III; Pop Culture: European-American Trends**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GERM385 **German Cinema**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Cross-listed with: CINE385. Credit only granted for: GERM385, CINE385 or FILM385. Formerly: FILM385.

A history of German cinema from the golden age of silent films to the flourishing film culture of the 21st Century. Focuses on changing ideas of the role and purpose of national cinema, as well as the cinematic representation of nation and national identity. Taught in English.

0101	Hester Baer	Seats (Total: 25)
	MW 3:30pm - 4:45pm	JMZ 3205

GERM386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Junior standing or higher. Credit only granted for: GERM386 or GERS386. Formerly: GERM386.

Internship and practicum.

Contact department for information to register for this course.

GERM389F **Topics in German Culture; Berlin: History, Memory, Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics in the cultures of the German-speaking peoples. Taught in English.

Contact department for information to register for this course.

GERM397H **Honors Reading (Independent Study)**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: GERM397 or GERS397. Formerly: GERM397.

Supervised reading to be taken normally only by students admitted into honors program.

Contact department for information to register for this course.

GERM399F **Selected Topics in German Studies; The Human Condition and the Totalitarian Experience**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics on the language, literature, and culture of the German-speaking world.

Contact department for information to register for this course.

GERM399R **Selected Topics in German Studies; Readings in Yiddish, Literature and Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics on the language, literature, and culture of the German-speaking world.

This is a Big Ten Academic Alliance Course-Share Course. Crosslisting with JWST319O. Credit only granted for JWST319O, GERM399R or JWST419Y. This course provides students with a unique chance to improve their Yiddish speaking, reading, and writing skills. In addition to touching on key grammar points, we explore texts written by classic Yiddish authors such as Sholem Aleichem, S.Y. Abramovitsch, I.L. Peretz, I.B. Singer, and contemporary. The final grade will be determined according to class participation, short essays, and a presentation. This course requires proficiency in a foreign language.

0101	Adi Mahalel	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	ONLINE

GERM411 **German for International Business I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced skills in German for international business, including understanding and writing correspondence, reports, graphics, ads, etc., according to current German commercial style.

Contact department for information to register for this course.

GERM442 **Gender and Sexuality in German Literature and Society**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GERS320 or GERS322. Credit only granted for: GERM442 or GERS442. Formerly: GERM442.

Gender and Sexuality in German Literature and Society analyzes gender and sexuality as key discourses for understanding German-speaking literatures, cultures, and societies. Topics include the history of sexuality; death and desire; and representations of gender in German literature. Taught in German.

Cross-listed with GERM689L. Credit only granted for GERM442 or GERM689L.

0101	Julie Koser	Seats (Total: 20)
	Tu 5:00pm - 7:30pm	JMZ 3205

GERM458B **Literary or Media Genres; The Modern Lyric**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Literary or Media Genres studies the formal and stylistic dimensions of specific genres, emphasizing genre as a social, political, and aesthetic category. Topics include pop literature; the history of German drama; and German film genres among others.

Prerequisite: GERM320 or GERM322 The seminar studies the relationship of the lyrical poem to the social, political, and ecological catastrophes of the 20th century. Students will also study poetic theory, historical poetry readings, and musical adaptations. Poets studied include Hofmannsthal, Trakl, Rilke, Lasker-Schuler, Benn, Kolmar, Brecht, Sachs, Celan, Aichinger, Bachmann,and Biermann, among others. Taught in German.

0101	Josh Alvizu	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	JMZ 3205

GERM498 **Honors Thesis Writing**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Required for students pursuing departmental honors in German languages and literatures. Under the direction of a German department faculty member, students write their honors theses.

Contact department for information to register for this course.

GERM499 **Directed Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Student-driven, independent study of a specialized topic in coordination with a faculty advisor.

Contact department for information to register for this course.

GERM618 **College Teaching of German**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Instruction, demonstration and classroom practice under supervision of modern procedures in the presentation of elementary German courses to college age students.

Restriction: Must be a German Studies TA.

0101	Regina Ianozi	Seats (Total: 5)
	W 2:00pm - 2:50pm	JMZ 3202

GERM689L **Special Topics - M.A. Level; Gender and Sexuality in German Literature and Society**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

M.A.-level study of a literary, linguistic or cultural topic in German or Germanic studies.

Cross-listed with GERM689L. Credit only granted for GERM442 or GERM689L. Gender and Sexuality in German Literature and Society analyzes gender and sexuality as key discourses for understanding German- speaking literatures, cultures, and societies. Topics include the history of sexuality; death and desire; and representations of gender in German literature. Taught in German.

0101	Julie Koser	Seats (Total: 20)
	Tu 5:00pm - 7:30pm	JMZ 3205

GERM689R **Special Topics - M.A. Level; The Modern Lyric**

Credits: 3 Grading Method: Regular, Audit

M.A.-level study of a literary, linguistic or cultural topic in German or Germanic studies.

The seminar studies the relationship of the lyrical poem to the social, political, and ecological catastrophes of the 20th century. Students will also study poetic theory, historical poetry readings, and musical adaptations. Poets studied include Hofmannsthal, Trakl, Rilke, Lasker-Schuler, Benn, Kolmar, Brecht, Sachs, Celan, Aichinger, Bachmann, and Biermann, among others. Taught in German.

0101	Josh Alvizu	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	JMZ 3205

GERM798 **Master's Independent Study**

Credits: 1-3 Grading Method: Regular, Audit

Contact department for information to register for this course.

GERM799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

GREK Greek Spring 2022

GREK102 **Elementary Ancient Greek II**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GREK101; or students who have taken courses with comparable content may contact the department.

Continuing development of basic grammar and reading skills; study and discussion of central aspects of Greek culture.

0101	Gregory Bucher	Seats (Total: 10)
	MWF 2:00pm - 2:50pm	ONLINE
	M 1:00pm - 1:50pm	ONLINE

GREK112 **Elementary Modern Greek II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GREK111; or permission of instructor. Credit only granted for: FOLA109G or GREK112. Formerly: FOLA109G.

It is designed for students who have already completed the first semester course (GREK111) and/or those whose level of proficiency in Greek is not advanced enough for the intermediate level. Like GREK111, an introduction is provided to the language and culture of modern Greece. Students acquire the basic tools of the language and learn to communicate in simple, everyday situations. This is the second of our two-semester sequence in Elementary Modern Greek and contributes to the fulfillment of the Global Engagement requirement of the College of Arts and Humanities.

0101	Polyvia Parara	Seats (Total: 10)
	MWF 12:00pm - 12:50pm	MMH 1218

GREK212 **Intermediate Modern Greek II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GREK211; or permission of instructor. Credit only granted for: FOLA119G or GREK212. Formerly: FOLA119G.

A continuation in the development of fluency in spoken and written communication along with the exploration of syntactic and grammatical structures. Comprehension and vocabulary enrichment are further developed through selected readings from Modern Greek prose and poetry. This is the second of our two-semester sequence in Intermediate Modern Greek and contributes to the fulfillment of the Global Engagement requirement of the College of Arts and Humanities.

0101	Polyvia Parara	Seats (Total: 7)
	MWF 11:00am - 11:50am	MMH 1218

GREK301 **Scenes from Athenian Life**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Credit only granted for: GREK301 or GREK351. Formerly: GREK351.

Makes the transition from study of Greek grammar to reading. Focus on selected aspects of life in Athens: marriage, friendship, the courts, festival, theatre. Reading short works by three authors: Lysias, Plato, and a playwright (e.g., Menander). Readings are in ancient Greek.

0101	Lillian Doherty	Seats (Total: 5)
	MW 3:30pm - 4:45pm	MMH 1218

GREK399A **Topics in Advanced Modern Greek Language and Culture; Advanced Modern Greek II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Development of communicative skills in advanced Modern Greek. Topics will be drawn from the social and folk life of modern Greece.

0101	Polyvia Parara	Seats (Total: 5)
	MWF 10:00am - 10:50am	MMH 1218

GREK411 **Modern Greek Literature and History**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Students must have earned a grade of C- or better in a 300-level Modern Greek course. Restriction: Permission of instructor. Credit only granted for: GREK311 or GREK411. Formerly: GREK311.

Students will study historical and political events in Greece during the 19th and 20th centuries through the viewpoint of the man of letters. Poetry, prose, plays, and essays reflect national emancipation, social reconstruction, and political struggles. Readings and discussion are in Modern Greek.

0101	Polyvia Parara	Seats (Total: 5)
	MW 2:00pm - 3:15pm	MMH 1218

GREK488T **Greek Readings; Tragedy and Comedy**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The reading of one or more selected Greek authors. Reports.

0101	Francisco Barrenechea	Seats (Total: 5)
	M 5:00pm - 7:40pm	MMH 1304

GREK499 **Independent Study in Greek Language and Literature**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

GREK688T **Special Topics in Greek Literature; Tragedy and Comedy**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

0101	Francisco Barrenechea	Seats (Total: 10)
	M 5:00pm - 7:40pm	MMH 1304

GREK699 **Independent Study in Greek Literature**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Contact department for information to register for this course.

GREK799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

GVPT Government and Politics Spring 2022

GVPT105S **Introduction to Political Ethics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB General Education: DSHS

Restriction: Must be in the College Park Scholars program; and must be in International Studies program or Public Leadership program.

An examination of major theories of political life and politics as they pertain to international politics, conflict, and culture. Emphasis will be given to theories of ethics and morality that pertain to international studies, such as human rights.

0101	Stacy Kosko W 3:30pm - 5:10pm F 9:00am - 9:50am	Seats (Total: 25) ATL 2324 ATL 1434	Discussion
0102	Stacy Kosko W 3:30pm - 5:10pm F 10:00am - 10:50am	Seats (Total: 25) ATL 2324 ATL 1434	Discussion
0103	Stacy Kosko W 3:30pm - 5:10pm F 1:00pm - 1:50pm	Seats (Total: 25) ATL 2324 ATL 1434	Discussion

GVPT158A **Special Topics in Study Abroad I; The European Union**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GVPT170 **American Government**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

A comprehensive study of national government in the United States.

0101	Patrick Wohlfarth MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 25) TYD 0130 TYD 0102	Discussion
0102	Patrick Wohlfarth MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) TYD 0130 TYD 0102	Discussion
0103	Patrick Wohlfarth MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) TYD 0130 TYD 0101	Discussion
0104	Patrick Wohlfarth MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 25) TYD 0130 TYD 0111	Discussion
0105	Patrick Wohlfarth MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) TYD 0130 TYD 0111	Discussion
0106	Patrick Wohlfarth MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) TYD 0130 TYD 0102	Discussion
0107	Patrick Wohlfarth MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) TYD 0130 TYD 1101	Discussion
0108	Patrick Wohlfarth MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) TYD 0130 TYD 1101	Discussion
0109	Patrick Wohlfarth MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 25) TYD 0130 TYD 0101	Discussion

GVPT200 **International Political Relations**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SB	General Education: DSHS, DVUP

A study of the major factors underlying international relations, the causes of conflict and cooperation among international actors, the role of international institutions, the interactions of domestic and foreign policies, and major issues in security, economy and the environment.

0101	Calvert Jones MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 25) ONLINE TYD 0101	Discussion
0102	Calvert Jones MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) ONLINE TYD 1102	Discussion
0103	Calvert Jones MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 25) ONLINE TYD 1102	Discussion
0104	Calvert Jones MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 25) ONLINE TYD 1101	Discussion
0105	Calvert Jones MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) ONLINE TYD 1108	Discussion
0106	Calvert Jones MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 25) ONLINE TYD 1108	Discussion
0107	Calvert Jones MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 25) ONLINE TYD 1102	Discussion
0108	Calvert Jones MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 25) ONLINE TYD 0102	Discussion
0109	Calvert Jones MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 25) ONLINE SKN 0104	Discussion

GVPT201 **Scope and Methods for Political Science Research**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Credit only granted for: GVPT100 or GVPT201. Formerly: GVPT100.

An introduction to empirical research in political science.

0101	Sarah Croco MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 25) TYD 0117 TYD 1108	Discussion
0102	Sarah Croco MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) TYD 0117 TYD 1114	Discussion
0103	Sarah Croco MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 25) TYD 0117 TYD 1132	Discussion
0201	Sarah Croco MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 25) LEF 2205 TYD 1114	Discussion
0202	Sarah Croco MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) LEF 2205 TYD 1132	Discussion
0203	Sarah Croco MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) LEF 2205 TYD 2102	Discussion
0204	Sarah Croco MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) LEF 2205 TYD 2111	Discussion
0205	Sarah Croco MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) LEF 2205 TYD 2109	Discussion

0206	Sarah Croco MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 25) LEF 2205 TYD 0102	Discussion

GVPT210 **Religions, Beliefs, and World Affairs**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DVUP, SCIS

Credit only granted for: GVPT210 or GVPT289L. Formerly: GVPT289L.

Introduces students to an increasingly important question: what is the relationship between religion and politics around the world? For a long period in the 20th Century, religion seemed to be decreasing in importance. Eventually, it was thought, religion would simply go away and secularism, development, and rationality would rule the day. In the last generation, however, events like the Iranian Revolution, the rise of the Christian Right, 9/11, the Tibetan monks protest, the spread of Truth and Reconciliation Commissions, and numerous wars fought in the name of God have brought religion back to prominence in world affairs. In this course, we will explore the contemporary impact of religions on politics around the world, through four broad themes: how to understand religion in politics , the relationship between religion and the state, religious groups as sources of conflict and peace, and contemporary religio-political challenges.

0101	John McCauley MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 20) SHM 2102 TYD 1118	Discussion
0102	John McCauley MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 20) SHM 2102 LEF 1221	Discussion
0103	John McCauley MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 20) SHM 2102 LEF 1221	Discussion
0104	John McCauley MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 20) SHM 2102 TYD 1132	Discussion
0105	John McCauley MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 20) SHM 2102 LEF 1220	Discussion

0106	John McCauley MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 20) SHM 2102 LEF 2166	Discussion

GVPT241 **The Study of Political Philosophy: Ancient and Modern**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Examines some of the salient continuities and breaks between the ancient and modern traditions in Western political philosophy.

0101	Sujith Kumar TuTh 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 25) LEF 2205 KEY 0123	Discussion
0102	Sujith Kumar TuTh 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 25) LEF 2205 LEF 2166	Discussion
0103	Sujith Kumar TuTh 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 25) LEF 2205 TYD 2109	Discussion
0104	Sujith Kumar TuTh 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 25) LEF 2205 LEF 1201	Discussion
0105	Sujith Kumar TuTh 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 25) LEF 2205 TYD 0111	Discussion
0106	Sujith Kumar TuTh 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 25) LEF 2205 KEY 0121	Discussion
0107	Sujith Kumar TuTh 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 25) LEF 2205 LEF 1201	Discussion

0108	Sujith Kumar	Seats (Total: 25)	
	TuTh 2:00pm - 2:50pm	LEF 2205	
	F 2:00pm - 2:50pm	TYD 0111	Discussion

GVPT258B **Introduction to Political Science Topics in Study Abroad; Enemy Within: Spies and Espionage in the Cold War**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258C **Introduction to Political Science Topics in Study Abroad; Government and Politics in China**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258D **Introduction to Political Science Topics in Study Abroad; Danish Politics and Society**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258J **Introduction to Political Science Topics in Study Abroad; Comparative Foreign Policy-Haifa**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258N **Introduction to Political Science Topics in Study Abroad; Arms Control in the Nuclear Realm**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258P **Introduction to Political Science Topics in Study Abroad; Sustainable Development: Environmental, Political and Social Issues**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258Q **Introduction to Political Science Topics in Study Abroad; Latin American Social Revolutions**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258R **Introduction to Political Science Topics in Study Abroad; Peace and Conflict Honors Seminar II: Regional Conflicts**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258T **Introduction to Political Science Topics in Study Abroad; Terrorism and Political Violence**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT273 **Introduction to Environmental Politics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

An overview of modern environmental philosophy, politics, and policy, exploring environmental politics in the US by way of comparison with other developed and developing countries.

0101	Conny Kazungu TuTh 12:30pm - 1:20pm F 9:00am - 9:50am	Seats (Total: 25) SQH 1120 TWS 1107	 Discussion
0102	Conny Kazungu TuTh 12:30pm - 1:20pm F 10:00am - 10:50am	Seats (Total: 25) SQH 1120 TWS 1107	 Discussion

0103	Conny Kazungu TuTh 12:30pm - 1:20pm Th 2:00pm - 2:50pm	Seats (Total: 25) SQH 1120 TYD 1118	Discussion

GVPT282 **Politics and the Developing World**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DVUP

A study of the domestic governmental institutions; processes and problems such as conflict and economic development; and the socio-economic environments that are common to developing countries of Africa, the Middle East, Asia, and Latin America.

0101	Jennifer Wallace TuTh 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 25) SHM 2102 TYD 1114	Discussion
0102	Jennifer Wallace TuTh 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 25) SHM 2102 TYD 0102	Discussion
0103	Jennifer Wallace TuTh 11:00am - 11:50am F 2:00pm - 2:50pm	Seats (Total: 25) SHM 2102 TYD 1114	Discussion
0104	Jennifer Wallace TuTh 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 25) SHM 2102 WDS 1114	Discussion
0105	Jennifer Wallace TuTh 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 25) SHM 2102 TYD 1118	Discussion
0106	Jennifer Wallace TuTh 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 25) SHM 2102 TYD 2111	Discussion

GVPT289B **Special Topics in Government and Politics; Globalization**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Substantive issues of and theoretical approaches to political phenomenon. Topics and credit vary.

Contact department for information to register for this course.

GVPT289D **How to Make Better Decisions**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

The problem with decisions is that we rarely, if ever, find out if our decisions were good or bad. Was choosing your major, for instance, a good decision or could you have made a better one? I don't think most of us would ever know the answer to this question. So, is it possible that we regularly make bad decisions but don't know that we do? And, if so, how can we fix something if we don't know it is broken? In fact, we do regularly make bad decisions. This has been shown in many experimental studies some of which will be covered in this class. What is more, for some types of decision problems we are hardwired to make mistakes. This means that we are bound to go wrong regardless of how much we know or how smart we are. So, what can we do to remedy this problem? Quite a bit, as it turns out.

0101	Piotr Swistak MW 3:00pm - 3:50pm F 9:00am - 9:50am	Seats (Total: 20) LEF 2205 LEF 1201	Discussion
0102	Piotr Swistak MW 3:00pm - 3:50pm F 10:00am - 10:50am	Seats (Total: 20) LEF 2205 LEF 1222	Discussion
0103	Piotr Swistak MW 3:00pm - 3:50pm F 1:00pm - 1:50pm	Seats (Total: 20) LEF 2205 LEF 1222	Discussion
0104	Piotr Swistak MW 3:00pm - 3:50pm F 9:00am - 9:50am	Seats (Total: 20) LEF 2205 Location: TBA	Discussion
0105	Piotr Swistak MW 3:00pm - 3:50pm F 10:00am - 10:50am	Seats (Total: 20) LEF 2205 JMZ 3205	Discussion
0106	Piotr Swistak MW 3:00pm - 3:50pm F 1:00pm - 1:50pm	Seats (Total: 20) LEF 2205 KEY 0100	Discussion

GVPT289E **Special Topics in Government and Politics; Economy and Society**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Substantive issues of and theoretical approaches to political phenomenon. Topics and credit vary.

Contact department for information to register for this course.

GVPT289G **Special Topics in Government and Politics; Global Perspectives on Development**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Substantive issues of and theoretical approaches to political phenomenon. Topics and credit vary.

Contact department for information to register for this course.

GVPT289P **Special Topics in Government and Politics; Citizenship and Ethics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Substantive issues of and theoretical approaches to political phenomenon. Topics and credit vary.

Contact department for information to register for this course.

GVPT289T **Special Topics in Government and Politics; Issues and Controversies in 21st Century**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Substantive issues of and theoretical approaches to political phenomenon. Topics and credit vary.

Contact department for information to register for this course.

GVPT289X **Special Topics in Government and Politics; Introduction to the European Union**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Substantive issues of and theoretical approaches to political phenomenon. Topics and credit vary.

Contact department for information to register for this course.

GVPT289Y **Special Topics in Government and Politics; Theories of Peace and Conflict**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Substantive issues of and theoretical approaches to political phenomenon. Topics and credit vary.

Contact department for information to register for this course.

GVPT306 **Global Environmental Politics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT200. Restriction: Must be in one of the following programs (Government & Politics; Government & Politics: International Relations) ; or permission of BSOS-Government & Politics department.

Focus on three processes of international environmental policy development- identifying problems, negotiating solutions, and implementing agreements- through a range of case studies, including global climate change.

Open to students in the ENSP: Environmental Politics & Policy program.

0101	Jennifer Wallace	Seats (Total: 30)
	Tu 2:00pm - 3:15pm Class time/details on ELMs	TYD 1101 ONLINE

GVPT309H **Topics in International Relations; British Politics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in international relations.

Contact department for information to register for this course.

GVPT309I **Topics in International Relations; Socio-Economic, Political, Religious, and Ethnic Conflicts in Israel, and the Search for Common Ground**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in international relations.

Contact department for information to register for this course.

GVPT317 **Mock Trial II: Advanced Trial Advocacy**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT217. Credit only granted for: GVPT317 or GVPT319B. Formerly: GVPT319B.

Development of trial advocacy skills through participation in practice trials and intercollegiate mock trial competitions. Student may have an opportunity to represent the university in intercollegiate mock trial tournaments, including the National Mock Trial Championships.

0101	William Mundy	Seats (Total: 40)
	W 6:30pm - 9:15pm	TYD 2109

GVPT319J **Topics in Social Advocacy; Making the World a Better Place: Global Development and Justice**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, research and discussion of variety of topics related to social advocacy.

Restriction: Must be in Government & Politics program or Government & Politics: International Relations program. Suppose you want to make the world a better place. You need to explore the global potential for improvement. What is the potential for justice in the world? What is the potential for sustainable development? What about the potential for a better form of democracy or a better form of capitalism? The short term potential for improvement is almost guaranteed to be limited, but what if we made an effort to think in a long term way? Can one do that? Shouldn't one do that? These are the big issues we will explore in this course.

0101	Karol Soltan	Seats (Total: 30)	
	TuTh 2:00pm - 3:15pm	LEF 1201	

GVPT320 **Advanced Empirical Research**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT201. Restriction: Must be in Government & Politics or Government & Politics: International Relations program.

Allows students to build on the knowledge of statistical inference they gained from GVPT201. Topics include data collection, data cleaning, data analysis, and data visualization. By the time students complete this class, they will be able to do basic statistical modeling using OLS regression independently.

0101	Candace Turitto	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm	TYD 0102	

GVPT331 **Courts, Law and Justice**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT170.

An introductory course to the study of law with emphasis on how lawyers and judges think and argue. Topics include, contract law, property, family law, torts, and criminal procedure.

Cross-listed with MLAW358W. Credit only granted for GVPT331 or MLAW358W.

0101	Michael Spivey	Seats (Total: 25)	
	MW 1:00pm - 1:50pm	ESJ 2208	
	F 9:00am - 9:50am	JMZ 0208	Discussion

0102	Michael Spivey MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) ESJ 2208 JMZ 0208	Discussion
0103	Michael Spivey MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) ESJ 2208 LEF 0135	Discussion
0104	Michael Spivey MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) ESJ 2208 KEY 0126	Discussion
0105	Michael Spivey MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) ESJ 2208 KEY 0116	Discussion
0106	Michael Spivey MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 25) ESJ 2208 KEY 0125	Discussion

GVPT349 **Topics in Political Philosophy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political philosophy.

Contact department for information to register for this course.

GVPT349Z **Topics in Political Philosophy; Political Thought**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political philosophy.

Contact department for information to register for this course.

GVPT355 **Capstone in International Conflict Management**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT354. Restriction: Enrollment is restricted to students in the Minor in International Development and Conflict Management; and sophomore standing or higher; and permission of BSOS-Government & Politics department.

Serves as one of the two capstone courses for the Minor in International Development and Conflict Management. Focuses on advanced theory and the practice and profession of international conflict management and is designed to provide students an introduction to, and a chance to engage with, a core set of practical skills relevant to the field.

0101	Michael Hess, Christopher Coleman, James Covey W 3:30pm - 6:15pm	Seats (Total: 40) TYD 1132

GVPT356 **Capstone in International Development**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP, DVCC

Prerequisite: GVPT354. Restriction: Enrollment is restricted to students in the Minor in International Development and Conflict Management; and sophomore standing or higher; and permission of BSOS-Government & Politics department.

Serves as one of the two capstone courses for the Minor in International Development and Conflict Management. Focuses on advanced theory and the practice and profession of international development and is designed to provide students an introduction to, and a chance to engage with, a core set of practical skills relevant to the field.

A Fearless Ideas Course from the Academy for Innovation & Entrepreneurship (AIE): http://ter.ps/iamFEARLESS Click here for more information on the Fearless Ideas Courses.

0101	Stacy Kosko M 2:00pm - 4:45pm	Seats (Total: 42) ESJ 1309

GVPT358A **Study Abroad Seminar in Political Science; Migration and Multiculturalism in Europe**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science.

Contact department for information to register for this course.

GVPT358F **Study Abroad Seminar in Political Science; Government and Politics in France**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science.

Contact department for information to register for this course.

GVPT358G **Study Abroad Seminar in Political Science; History and Politics of Modern Italy: The Twentieth Century**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science.

Contact department for information to register for this course.

GVPT358N **Study Abroad Seminar in Political Science; Spain in the 21st Century: Nationalism, Populism & Social Movements**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science.

Contact department for information to register for this course.

GVPT358P **Study Abroad Seminar in Political Science; Political Rhetoric: Blogs, Speeches, and Spin**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science.

Contact department for information to register for this course.

GVPT358R **Study Abroad Seminar in Political Science; Religion and Politics in Europe**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science.

Contact department for information to register for this course.

GVPT359 **Topics in Comparative Politics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in comparative politics.

Contact department for information to register for this course.

GVPT359Z **Topics in Comparative Politics; Parliament, Politics and Policy Making**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in comparative politics.

Contact department for information to register for this course.

GVPT368A **Special Topics in Government and Politics; U.S. Foreign Policy and the Arab-Israeli Conflict**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in government and politics.

Cross-listed with ISRL349F. Credit only granted for ISRL349F or GVPT368A. Students who attended the course "The United States and Israel: Likely or Unlikely Allies?" (ISRL329N or GVPT368B) may not enroll in this course. What are the U.S. interests in the Middle East? Who and what defines these interests, or how to pursue them diplomatically and militarily? The Arab/Palestinian-Israeli conflict is a defining feature of the modern Middle East and it unquestionably has a significant impact on U.S. domestic politics and international leadership. Given those realities, this course will examine how U.S. foreign and security affecting the Arab/Palestinian-Israeli conflict is made and how it shapes and determines the realities on the ground, as well as the prospects for its peaceful resolution.

0101	Ilai Saltzman	Seats (Total: 35)
	TuTh 11:00am - 12:15pm	PLS 1113

GVPT368C **Special Topics in Government and Politics; Asian American Politics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in government and politics.

Restriction: Must be in Government & Politics program or Government & Politics: International Relations program. Credit only granted for: AAST443 or GVPT368C. Students will gain a greater understanding of 1) the role of Asian Americans in US politics, 2) the political attitudes and behaviors of Asian Americans and 3) how to conduct research on Asian American politics. Though the class will concentrate on Asian Americans, issues related to Asian American politics will be examined within the larger context of America's multicultural political landscape.

0101	Janelle Wong	Seats (Total: 40)
	MW 2:00pm - 3:15pm	TYD 0102

GVPT368F **Special Topics in Government and Politics; Tzahal: The Israeli Military in State, Society, and its Middle Eastern Context**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in government and politics.

Cross-listed with ISRL349G. Credit only granted for ISRL349G or GVPT368F. This course offers an introduction to general concepts of civil- military relations with a strong focus on the Israeli case. Situating Israel within the Middle East context, the course readings and class discussions will include comparative references to major regional players, such as Egypt, Turkey, Iran, and the Arab Gulf States. The military is a salient feature of all Middle Eastern states; we will explore how Israel both resembles and differs from other states in the region regarding the role of its military and of civil-military relations.

0101	Marwa Maziad	Seats (Total: 35)
	TuTh 10:00am - 11:15am	ONLINE

GVPT368N **Special Topics in Government and Politics; American Jewry and Public Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in government and politics.

Jointly offered with GVPT368N. Credit only granted for JWST429M or GVPT368N. An examination of the contours of American Jewry and its engagement in public policy. Focus will be on historical development, Jewish political thought, organizational and representation structures. Areas of specific concern include Israel and foreign policy, as well as domestic topics, including electoral politics. A number of in- depth case studies will be examined.

0101	Scott Lasensky	Seats (Total: 40)
	Tu 4:00pm - 6:30pm	TYD 0111

GVPT368P **Special Topics in Government and Politics; Political Psychology, Israel, and the Middle East**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in government and politics.

Cross-listed with GVPT368P. Credit only granted for ISRL329Q or GVPT368P. What is the role of perceptions and misperceptions in international politics? How do emotions impact policy making processes? Does social psychology matter when analyzing domestic politics or foreign policy? Political psychology is an interdisciplinary academic field dedicated tothe analysis of the nexus between psychological and political processes. This course will identify and employ multiple pertinent political psychology theories to account for Israeli domestic politics and foreign policy as well as other major political events throughout the Middle East.

0101	Ilai Saltzman	Seats (Total: 35)
	TuTh 3:00pm - 4:15pm	JMP 1202

GVPT373 **Geographic Information Systems for Redistricting**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT392. Recommended: Recommended: at least one course in statistics.

Local, state and federal governments must periodically draw and redraw political boundaries to account for shifts in the population. This course will be an introduction and overview of district drawing and redistricting as an important application of GIS research in political science and public policy. This class will equip students to use convenient GIS tools to create and consider alternative district scenarios to find the best possible solution. After finishing this class students will be able to draw districts to define police beats, sales territories, congressional and state legislative districts, school and fire protection districts, and numerous other boundaries.

0101	James Gimpel	Seats (Total: 30)
	TuTh 9:30am - 10:45am	TYD 1118

GVPT376 **Applied Field Research in Government and Politics**

(Perm req)

Credits: 3-6 Grading Method: Sat-Fail

Prerequisite: GVPT170. Corequisite: GVPT377.

Students in this course participate as interns in an agency of government or in some other appropriate political organization. Assignments are arranged to provide students with insights into both theoretical and practical aspects of politics. Under the tutelage of the host agency and an academic advisor, students conduct a major research project of mutual interest to the student and his or her host agency in the field of government and politics.

Contact department for information to register for this course.

GVPT377 **Experiential Learning: Government and Politics Internship Program**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT170. Credit only granted for: GVPT377 or GVPT388W. Formerly: GVPT388W.

The application of major concepts of political science to the realities of the political process. The course connects internship experiences with larger themes of political science. Students must be admitted to the GVPT Internship Program.

Students interested in registering for this course must have an internship secured and must apply to the GVPT Internship Program. Required in-person class meetings will take place 6:30pm-9:15pm on the following Wednesdays: February 23, March 30, and April 27.

Click here for more course information.

0101	Candace Turitto Class time/details on ELMs W 6:30pm - 9:15pm	Seats (Total: 40) ONLINE SQH 1105

GVPT386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Restriction: Permission of BSOS-Government & Politics department; and junior standing or higher.

Contact department for information to register for this course.

GVPT388 **Topical Investigations**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Independent research and writing on selected topics in government and politics.

Permission of Director of Undergraduate Studies required.

Contact department for information to register for this course.

GVPT388M **Topical Investigations; Mock Trial Independent Study**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Independent research and writing on selected topics in government and politics.

Prerequisite: Permission of department.

0101	William Mundy W 6:30pm - 9:15pm	Seats (Total: 15) TYD 2111

GVPT388O **Topical Investigations; Race Relations in the US and France**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Independent research and writing on selected topics in government and politics.

Contact department for information to register for this course.

GVPT389 **Experiential Learning II**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail, Audit

Experiential credit for working in government & politics related internships, research, and teaching opportunities.

Junior standing.

Contact department for information to register for this course.

GVPT390 **Game Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must not have completed ECON414. Credit only granted for: GVPT399A, GVPT390, CMSC474 or ECON414. Formerly: GVPT399A.

Introduction to game theory with applications to political science, economics and sociology. Topics include preference theory, expected utility theory, Nash equilibria, subgame perfection, repeated games, folk theorems, and evolutionary stability.

0101	Piotr Swistak	Seats (Total: 30)
	Tu 2:00pm - 4:45pm	TYD 1102

GVPT396 **Introduction to Honors Research**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Must be in Government & Politics Honors Program; and must have permission of the Government & Politics Honors Program.

A required course for all honors students designed to emphasize library research, methodology, and writing skills in political science and political philosophy. A written proposal, bibliography and research design for an honors paper required of all students as a final project.

Contact department for information to register for this course.

GVPT397 **Honors Research**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: GVPT396. Restriction: Must be in Government & Politics Honors Program.

Individual reading and research. Preparation of an original paper.

Contact department for information to register for this course.

GVPT399 **Seminar in Government and Politics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399C **Seminar in Government and Politics; Cultures Without State: The Case of Catalonia**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399D **Seminar in Government and Politics; Society and Politics in Contemporary Spain**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399E **Seminar in Government and Politics; The European Union: Politics and Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399I **Seminar in Government and Politics; Globilization**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399J **Seminar in Government and Politics; Modern British Politics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399K **Seminar in Government and Politics; Structure and Process in International Relations**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399L **Seminar in Government and Politics; British Politics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399M **Seminar in Government and Politics; Policy Analysis**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399O **Seminar in Government and Politics; Parliament Politics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399P **Seminar in Government and Politics; Foreign Policy Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399Q **Seminar in Government and Politics; Security and Defense Policy in the European Union**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399R **Seminar in Government and Politics; Modern American Government**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399T **Seminar in Government and Politics; Social Policy, Social Exclusion**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399V **Seminar in Government and Politics; Political Economy of China and Japan**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399W **Seminar in Government and Politics; International Economic Organizations**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399X **Seminar in Government and Politics; Politics of the Balkan**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399Y **Seminar in Government and Politics; Political Economy of Sustainable Development**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399Z **Seminar in Government and Politics; International Security**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT402 **International Law**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT200. Restriction: Must be in Government & Politics program; and junior standing or higher.

A study of the basic character, general principles and specific rules of international law, with emphasis on recent and contemporary trends in the field and its relation to other aspects of international affairs.

Contact department for information to register for this course.

GVPT404 **Political Economy of Foreign Aid**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: GVPT200. Restriction: Must be in Government & Politics or Government & Politics: International Relations program. Credit only granted for: GVPT409R or GVPT404. Formerly: GVPT409R.

The world spends hundreds of billions of dollars on foreign aid every year. The effects of this aid spending are controversial. Research supports both pessimistic and optimistic views of foreign aid's effectiveness, with little consensus. Where does aid money go? What are the motivations of aid donors? Is foreign aid effective at achieving its goals? Why or why not? This course is designed to survey the promise and the challenges of foreign aid as a policy tool. The first half of the course will focus on the motivations and goals of foreign aid. We will consider various foreign aid donors, such as countries, institutions, and individuals, to understand the motivations behind and effects of foreign aid. We will create a typology of foreign aid agendas, motivations, and donors. The second half of the course will consider the challenges specific to foreign aid. This includes both technical challenges and political challenges. We will consider the strategies that aid donors and organizations have taken to try to overcome these challenges.

0101	Shannon Carcelli	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	TYD 1108

GVPT406 **International Organizations**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT200. Restriction: Must be in Government & Politics program; and junior standing or higher. Or must be in Government & Politics: International Relations program; and junior standing or higher.

A basic introduction to the full range of international organizations that have come into being over the past century and one-half, including those that aspire to be universal or global, those with a geopolitical or regional focus, and those that address specific structural or functional areas of human endeavor or issue areas.

0101	Todd Allee	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	TYD 0111

GVPT409G **Seminar in International Relations and World Politics; Corporations and the Global Political Economy**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT200. Restriction: Must be in Government & Politics or Government & Politics: International Relations program. The course will examine corporations as political actors in global politics, analyzing power, norms and governance in different issue areas.

0101	Virginia Haufler	Seats (Total: 30)
	MW 2:00pm - 3:15pm	TYD 1101

GVPT409H **Seminar in International Relations and World Politics; International Relations of the Middle East**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT200. Restriction: Must be in Government & Politics Honors program. This seminar will evaluate major issues of the international relations of the Middle East and the American role and responses to these issues. The seminar will focus on several post-Cold War cases in American foreign policy, including the 1991 and 2003 Gulf wars, policy toward Iran, American mediation in the Arab-Israeli conflict, responses to the Arab Uprisings, re-emerging competition with Russia, and broader issues such as regional reform and nuclear non-proliferation.

0101	Shibley Telhami	Seats (Total: 20)
	M 2:00pm - 4:45pm	CHI 2113

GVPT409M **Seminar in International Relations and World Politics; China's Rise and the Future of US-China Relations**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program or Government & Politics: International Relations program. Prerequisite: GVPT200 Recommended: GVPT204 or GVPT289J This course will apply theories of international politics in assessing the prospects for conflict and cooperation in US-China relations.

0101	Scott Kastner	Seats (Total: 30)
	Tu 2:00pm - 4:45pm	TYD 1114

GVPT409T **Seminar in International Relations and World Politics; Political Economy of the Middle East**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Contact department for information to register for this course.

GVPT409V **Seminar in International Relations and World Politics; Game Theory and International Security**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Contact department for information to register for this course.

GVPT409X **Seminar in International Relations and World Politics; Arms Control in the Nuclear Realm**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Contact department for information to register for this course.

GVPT409Y **Seminar in International Relations and World Politics; Arab-Israeli Relations**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Contact department for information to register for this course.

GVPT409Z **Seminar in International Relations and World Politics; International Relations: Theory and Institutions**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT200. Restriction: Must be in Government & Politics program or Government Politics: International Relations program.

Contact department for information to register for this course.

GVPT414 **International Relations of East Asia**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT200. Restriction: Must be in Government & Politics or Government & Politics: International Relations program. Credit only granted for: GVPT409E or GVPT414. Formerly: GVPT409E.

An examination of international relations in East Asia, focusing mostly on Northeast Asia. The course will provide some background on the evolution of international politics in the region over the past several decades, and will examine several contemporary issues--including the North Korean nuclear issue, the relationship across the Taiwan Strait, and maritime disputes in the East and South China Seas--in depth.

0101	Scott Kastner	Seats (Total: 30)
	TuTh 9:30am - 10:45am	TYD 1132

GVPT417 **Seminar in Advanced Topics in Environmental Policy Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT273. Restriction: Must be in one of the following programs (Government & Politics; Environmental Sci&Policy-Env Politics & Policy). Credit only granted for: GVPT419B or GVPT417. Formerly: GVPT419B.

A series of critical tools and methods used to analyze environmental policy. This class should be of interest to students who are either considering a career or graduate studies in environmental protection.

0101	Conny Kazungu	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	TYD 1108

GVPT423 **Elections and Electoral Behavior**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT241 and GVPT170. Restriction: Must be in Government & Politics program.

An examination of various topics relating to elections; the focus includes the legal structure under which elections are conducted, the selection and nomination process, the conduct of election campaigns, and patterns of political participation and voting choice in different types of elections.

0101	James Gimpel	Seats (Total: 30)
	Tu 2:00pm - 4:45pm	SQH 1101

GVPT432 **Civil Rights and the Constitution**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT170 and GVPT331. Restriction: Must be in one of the following programs (Government & Politics; Government & Politics: International Relations).

A study of civil rights in the American constitutional context, emphasizing freedom of religion, freedom of expression, minority discrimination, and the rights of defendants.

Credit only graned for GVPT432 or MLAW358Y.

0101	Michael Spivey	Seats (Total: 70)
	MW 3:00pm - 4:15pm	TYD 1102

GVPT439A **Seminar in Public Law; Comparative Constitutional Law**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in public law. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT280 or GVPT282 Restriction: Must be in Government & Politics program; or must be in Government & Politics: International Relations program. Introduction to basic issues of constitutional law in a global and comparative perspective. Topics: constitution making and amending, enforcing,suspending, and reasoning with constitutions. Federalism and separation of powers. Fundamental rights. Constitutionalism outside the West. Constitutions beyond states. In this course the US Constitution will not be discussed.

0101	Karol Soltan	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	LEF 1201

GVPT439I **Seminar in Public Law; American Economic Inequality and the Law**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in public law. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics or Government & Politics: International Relations program. The United States has one of the highest levels of economic inequality in the developed world. While some level of economic inequality is inherent and even desirable in a capitalistic economy, many scholars believe that the level of inequality that prevails in the United States erodes generalized levels of trust, poisons interpersonal relationships, and ultimately makes it far more difficult to govern a democratic society. This course examines the roots of American economic inequality, with a tight focus on how laws adopted through democratic processes have resulted in a huge transfer of wealth from the hands of the many to the hands of the few.

0101	Martin Kobren	Seats (Total: 30)
	MW 10:00am - 11:15am	WDS 1114

GVPT442 **History of Political Theory--Medieval to Recent**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT241. Restriction: Must be in Government & Politics program.

A survey of the principal theories set forth in the works of writers from Machiavelli to Nietzsche.

Contact department for information to register for this course.

GVPT443 **Contemporary Political Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT241. Restriction: Must be in Government & Politics program.

A survey of the principal political theories and ideologies set forth in the works of writers from Karl Marx to the present.

Contact department for information to register for this course.

GVPT445H **Marxism and Postmarxism**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major within BSOS-Government & Politics department.

The study of Marxist thought and an assessment of the critical transformations and reassessments of the theory and practice of Marxism.

Restriction: Must be in Government & Politics Honors program.

0101	Vladimir Tismaneanu	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	TYD 1114

GVPT449E **Seminar in Political Philosophy; Social Philosophy and Political Economy**

Credits: 3

Grading Method: Regular,
Pass-Fail, Audit

Reading, writing, and research on topics in political philosophy. Both substantive issues and methodological approaches will be considered.

Also offered as PHPE401. Credit only granted for PHPE401 or GVPT449E. Restriction: Must be in Government & Politics program or Government & Politics: International Relations program. This course examines capitalism and socialism as differing modes of economic production through several different theoretical lenses. We begin by examining capitalism and socialism as they developed historically, by looking primarily at the work of Adam Smith and Karl Marx. Then, we turn our attention to one of the most important debates 20th century economics: to what extent rational economic calculation is possible in a socialist commonwealth. After this we turn our attention to how capitalist and socialist modes of production functioned in practice. We end by turning our attention to the ethics of capitalism and socialism: which mode of economic production is most just?

0101	Brian Kogelmann	Seats (Total: 6)
	TuTh 9:30am - 10:45am	TYD 2111

GVPT449F **Seminar in Political Philosophy; Political Theory & Film: How to Think About Concepts ThroughImages**

Credits: 3

Grading Method: Regular,
Pass-Fail, Audit

Reading, writing, and research on topics in political philosophy. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT241. Restriction: Must be in Government & Politics program or Government & Politics: International Relations program.

0101	James Glass	Seats (Total: 30)
	M 3:30pm - 5:45pm Class time/details on ELMs	TYD 1114 ONLINE

GVPT449G **Seminar in Political Philosophy; Global Justice**

Credits: 3

Grading Method: Regular,
Pass-Fail, Audit

Reading, writing, and research on topics in political philosophy. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program; or must be in Government & Politics: International Relations program. The course begins by laying the foundation for the debate over the scope and limits of global justice, and then examines some topics that arise when thinking globally about justice, such as poverty, the environment and waging war. The course ends by considering the possibility of creating a cosmopolitan framework within which to adjudicate between competing interests in the globalized world.

0101	Sujith Kumar	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	TYD 1132

GVPT449P **Seminar in Political Philosophy; The Psychotic Edge of Political Life**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in political philosophy. Both substantive issues and methodological approaches will be considered.

Must be in Government & Politics program or Government & Politics: International Relations program. Prerequisite: GVPT241 This course in modern political theory will cover critical concepts in political thought: genocide, legitimacy, responsibility resistance, and political ethics.

0101	James Glass	Seats (Total: 30)
	W 3:30pm - 6:15pm	TYD 1114

GVPT449X **Seminar in Political Philosophy; Ethics & Global Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in political philosophy. Both substantive issues and methodological approaches will be considered.

Contact department for information to register for this course.

GVPT449Y **Seminar in Political Philosophy; Environmental Political Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in political philosophy. Both substantive issues and methodological approaches will be considered.

Contact department for information to register for this course.

GVPT456 **The Politics of Terrorism**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT200. Restriction: Must be in Government & Politics program; or must be in Government & Politics: International Relations program. Credit only granted for: GVPT456 or GVPT459T. Formerly: GVPT459T.

Examination of the definition, causes and organization of terrorist activity, along with key domestic and international counter- and anti-terrorism responses. Special emphasis on challanges and opportunities to the scientific study of terrorism.

0101	Moran Stern	Seats (Total: 30)
	W 3:00pm - 5:45pm	HBK 0103

GVPT457 American Foreign Relations

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT200. Restriction: Must be in Government & Politics program; and junior standing or higher.

The principles and machinery of the conduct of American foreign relations and an analysis of the major foreign policies of the United States.

0101	Shannon Carcelli	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	TYD 1132

GVPT458C Special Topics in Study Abroad IV

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GVPT458G Special Topics in Study Abroad IV; Czech Society Transformation

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GVPT458O Special Topics in Study Abroad IV

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GVPT458R **Special Topics in Study Abroad IV; Terrorism and Counterterrorism in International Politics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GVPT458U **Special Topics in Study Abroad IV; Spanish History and Politics: 1936 to the Present**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GVPT459R **Seminar in Comparative Politics; The Rise and Fall of Communism**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in comparative politics. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program or Government & Politics: International Relations program.

0101	Vladimir Tismaneanu	Seats (Total: 30)
	Th 2:00pm - 4:45pm	TYD 1102

GVPT461 **Local Politics and Government**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT170. Restriction: Must be in Government & Politics program; or must be in Government & Politics: International Relations program. Credit only granted for: GVPT461 or GVPT479L. Formerly: GVPT479L.

An introduction to local government and politics in the U.S. context. The course explores the evolution of local jurisdictions, particularly cities, and the politics of local level decision making.

0101	Richard Engstrom Th 6:30pm - 9:15pm	Seats (Total: 30) TYD 2102

GVPT473 **The U.S. Congress**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT241 and GVPT170. Restriction: Junior standing or higher. And must be in Government & Politics program; or must be in Government & Politics: International Relations program.

A detailed survey of lawmaking and the legislative process, emphasizing the U.S. Congress, and its members.

0101	Kristina Miler W 2:00pm - 4:45pm	Seats (Total: 30) TYD 1118

GVPT475 **The Presidency and the Executive Branch**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT241 and GVPT170. Restriction: Must be in Government & Politics program; and junior standing or higher.

An examination of the U.S. presidency in historical and contemporary perspective: nomination and electoral politics and the president's place in policy-making, administration, and public opinion.

0101	David Karol TuTh 11:00am - 12:15pm	Seats (Total: 30) TYD 1132

GVPT479C **Seminar in American Politics; Civic Engagement in Action**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in American politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT170 Restriction: Must be in Government & Politics program or Government & Politics: International Relations program. This course will help students understand Maryland politics through direct engagement with the state legislative process. Students will identify a bill that is being considered in the current Maryland legislative session. They will conduct analysis and engage in advocacy work needed to affect the preferred outcome of the bill. Direct work on legislation will be integrated with the study of state political institutions and processes. As such, the course will involve travel to the Maryland State Legislature in Annapolis to meet with lawmakers and policy advocates. Students should have the flexibility in their schedules to be able to make at least two trips to Annapolis during the semester. While several class sessions will be dedicated for this purpose, students will need more than the hour and a half class time to make the trip and engage with legislative stakeholders.

0101	Stella Rouse	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	TYD 1118

GVPT479D **Seminar in American Politics; Minority Politics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in American politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT170 Restriction: Must be in Government & Politics or Government & Politics: International Relations program. A comprehensive examination of how minority groups operate within the U.S. political system. The substantive focus of the course will be on the historical position of minorities in the U.S. political system, on different concepts of representation, on minority group identity, and on political participation and policy issues that are of particular importance to minorities.

0101	Stella Rouse	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	TYD 1101

GVPT479H **Seminar in American Politics; Power, Representation and Public Policy**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in American politics. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in the Government & Politics Honors program. Many classes focus on a narrow aspect of the American political system such as Congress, courts, or voter behavior. All of these are important topics, but for many their importance lies in their connection to broader processes of representation and policy-making. In this class we will survey many topics as they bear upon these two broader themes: who makes policy and who is represented? Readings include both classics and recent studies reflecting differing approaches to scholarship.

0101	David Karol	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	LEF 1220

GVPT479W **Seminar in American Politics; Women of Color in Politics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in American politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT170. Restriction: Must be in Government & Politics or Government & Politics: International Relations program. Explores the significant roles that women of color have played in American politics and around the world. Begins with the US context, starting in the antebellum era and moving forward by reading biographies autobiographies that provide voice to the experiences/faced by women of color in both traditional and non-traditional political spaces. These include women of color as close confidants to male political figures (first ladies, wives, and mistresses) and as politicians, judges, activists, and revolutionaries. Then shifts to a more global context considering the perspectives of women of color in countries where they have championed gender equality and feminism, and where they have become powerful political actors.

0101	Chryl Laird	Seats (Total: 30)
	MW 1:00pm - 2:15pm	TYD 1102

GVPT481 **Government and Administration of Russia and the States of the Former Soviet Union**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT200; and (GVPT282 or GVPT280). Restriction: Must be in Government & Politics program.

A comparative study of the governmental systems and political processes of the states of the former Soviet Union.

Contact department for information to register for this course.

GVPT484 **Government and Politics of Africa**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT282 or GVPT280. Restriction: Must be in one of the following programs (Government & Politics; Government & Politics: International Relations).

A comparative study of the governmental systems and political processes of the African countries, with special emphasis on the problems of nation-building in emergent countries.

This is a Global Classrooms course, developed in partnership with the Office of International Affairs (OIA) to provide virtual opportunities for global engagement. Global Classrooms can range from embedded experiences to immersive, project-based collaboration. Learn more about Global Classrooms: go.umd.edu/gc-umd.

0101	John McCauley MW 3:00pm - 4:15pm	Seats (Total: 30) TYD 0101

GVPT485 **Government and Politics of the Middle East**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT200; and (GVPT282 or GVPT280). Restriction: Must be in Government & Politics program. Credit only granted for: GVPT485 or GVPT459E. Formerly: GVPT459E.

A comparative study of the governmental systems and political processes of Middle Eastern countries, with special emphasis on the problems of nation-building in emergent countries.

Contact department for information to register for this course.

GVPT605 **Introduction to Conflict and Cooperation in the World Economy**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: GVPT604. Restriction: Must be in the International Relations Master's program; or permission of Government and Politics department.

This seminar examines major theoretical approaches and empirical studies of international political economy, contemporary dynamics of globalization, the role of domestic politics in the formation of foreign economic policies of states, the dynamics of international trade and investment disputes, and role of international institutions in multi-lateral governance of the world economy. The focus is on developing an understanding of central debates in the literature and primary empirical findings from quantitative and cross-national analyses that are of policy relevance.

0101	Jennifer Wallace W 2:00pm - 4:45pm	Seats (Total: 31) TYD 1108
PCR1	Jennifer Wallace W 2:00pm - 4:45pm *Must be in the International Relations (MA) program.*	Seats (Total: 4) TYD 1108

GVPT606 **Introduction to International Institutions and International Law**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: GVPT604. Restriction: Must be in the International Relations Master's program; or permission of Government and Politics department.

This seminar examines major theoretical approaches and empirical studies of international law and institutions relating to international political economy and international security. Topics to be covered include the sources of international law and the development of core legal principles in the post-WWII ear, the role of international economic institutions such as WTO, IMF, and World Bank in the global economy, and the influence of international institutions such as the UN Security Council, World Court, and International Criminal Court in addressing international security issues. Larger questions about the effectiveness of the WTO, Laws of War, and International Human Rights Law will be considered. The focus is on developing an understanding of central debates in the literature and primary empirical findings from quantitative and cross-national analyses that are of policy relevance.

0101	Deniz Cil Tu 3:30pm - 6:15pm	Seats (Total: 31) TYD 1118
PCR1	Deniz Cil Tu 3:30pm - 6:15pm *Must be in the International Relations (MA) program.*	Seats (Total: 4) TYD 1118

GVPT621 **Coding in Statistical Software**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in the Applied Political Analytics Master of Science program; or permission of department.

Introduction to different statistical software packages used in empirical political research. Instruction to beginner and intermediate programming in STATA and R.

PCA1	Richard Engstrom W 6:30pm - 9:30pm *Must be in Applied Political Analytics (MS). All other graduate students must request permission. Contact oes@umd.edu.*	Seats (Total: 10) TYD 1132

GVPT624 **National Security and International Relations**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in the Applied Political Analytics Master of Science program; or permission of department.

Introduction to key areas of research in national security and international relations. Students will learn the major approaches to empirical research on national and international security and work with datasets focused on terrorist attacks and civil conflict.

0101	Conny Kazungu W 1:00pm - 3:45pm	Seats (Total: 20) LEF 2166
PCA1	Conny Kazungu W 1:00pm - 3:45pm *Must be in Applied Political Analytics (MS). All other graduate students must request permission. Contact oes@umd.edu.*	Seats (Total: 15) LEF 2166

GVPT722 **Advanced Quantitative Methods For Political Science**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: GVPT622; or permission of instructor.

Introduction to multivariate analysis. Elementary matrix algebra, multiple linear and curvilinear correlation and regression, analysis of variance, canonical correlation and regression, discriminant analysis, and several types of factor analysis.

0101	Sarah Croco Tu 10:00am - 12:45pm	Seats (Total: 12) TYD 1136
0201	Sarah Croco Contact instructor or department for details.	Seats (Total: 12)

GVPT729M **Special Topics in Quantitative Political Analysis; Multilevel Analysis**

Credits: 3 Grading Method: Regular, Audit

An intensive examination of special topics in quantitative methods of political analysis in such areas as survey research methods, exploratory data analysis, advanced data management techniques, or advanced methods of policy analysis.

0101	Ernesto Calvo Tu 9:30am - 12:15pm	Seats (Total: 12) TYD 1111

GVPT729Q **Special Topics in Quantitative Political Analysis; Quantitative Analyses of International Political Economy and International Security**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

An intensive examination of special topics in quantitative methods of political analysis in such areas as survey research methods, exploratory data analysis, advanced data management techniques, or advanced methods of policy analysis.

PCR1	Jacob Aronson	Seats (Total: 16)
	F 11:00am - 1:45pm	WDS 1130
	Must be in the International Relations (MA) program.	

GVPT761 International Political Economy

Credits: 3 Grading Method: Regular, Audit

Recommended: GVPT708.

Major issues in international political economy including such matters as the monetary system, trade, debt, and development.

0101	Todd Allee	Seats (Total: 12)
	Tu 3:30pm - 6:15pm	TYD 1136

GVPT771 Seminar in American Political Behavior

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

This is the core seminar in American political behavior. The course will deal with prominent theoretical and empirical issues in the areas of voting, public opinion, political participation and other aspects of political behavior in the American context.

0101	Antoine Banks, Michael Hanmer	Seats (Total: 12)
	Th 10:00am - 12:45pm	TYD 1111

GVPT799 Master's Thesis Research

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

GVPT808B Selected Topics in Functional Problems in International Relations; Conflict and World Politics

Credits: 3 Grading Method: Regular, Audit

An examination of the major substantive issues in contemporary international relations.

0101	Paul Huth	Seats (Total: 12)
	Th 2:00pm - 4:45pm	TYD 1136

GVPT808C **Selected Topics in Functional Problems in International Relations; Prospectus Seminar**

Credits: 3 Grading Method: Regular, Audit

An examination of the major substantive issues in contemporary international relations.

0101	Kathleen Cunningham	Seats (Total: 12)
	Tu 12:30pm - 3:15pm	JMZ 0120

GVPT808I **Selected Topics in Functional Problems in International Relations; The Impact of International Economics and Security on Developing Countries**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

An examination of the major substantive issues in contemporary international relations.

PCR1	Andrew Lugg	Seats (Total: 16)
	Tu 10:00am - 12:45pm	WDS 1130
	Must be in the International Relations (MA) program.	

GVPT849 **Readings in Government and Politics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Guided readings and discussions on selected topics in political science.

Contact department for information to register for this course.

GVPT873 **Seminar in Legislatures and Legislation**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Reports on topics assigned for individual study and reading about the composition and organization of legislatures and about the legislative process.

0101	Kristina Miler	Seats (Total: 12)
	M 12:30pm - 3:15pm	TYD 1111

GVPT879P **Topics on International Security; The Political Economy of International Power and Security Policy**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

A detailed and advanced analysis of particular regional problems on defense policy and arms control.

PCR1	Andrew Lugg	Seats (Total: 16)
	W 10:00am - 12:45pm	TYD 1132
	Must be in the International Relations (MA) program.	

GVPT888I **Selected Topics in Comparative Governmental Institutions; The Politics of Identity**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

An examination of special topics in comparative politics.

0101	Johanna Birnir	Seats (Total: 12)
	W 12:30pm - 3:15pm	TYD 1136

GVPT898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Guided readings and discussions on selected topics in political science.

Contact department for information to register for this course.

GVPT899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

HACS ACES-Cybersecurity Spring 2022

HACS101 **Applied Cybersecurity Foundations**

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in HACS100. Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program.

Prepares students for team research that will be conducted in HACS 200. Students gain an understanding across the breadth of cybersecurity including system monitoring, networking basics and penetration testing. An applied approach to statistics is also included to prepare students to assess the data collected for their research projects. The course is conducted with a hands-on approach applying virtual environments to practice the concepts learned in the technical lectures each week.

0101	Zhi Xiang Lin MW 10:00am - 10:50am	Seats (Total: 42) PFR 1105
0201	Zhi Xiang Lin MW 11:00am - 11:50am	Seats (Total: 42) PFR 1105

HACS202 **Group Project in Cybersecurity**

Credits: 3 Grading Method: Regular

Restriction: Must be a first-year student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program; and cannot have been an ACES Living-Learning Program student (i.e., have taken HACS100, HACS101 and HACS200).

The group project in this course will combine technical, analytical, and communication skills, further engaging students in the practice of cybersecurity. Students will learn about design concepts and data analysis as they engage in a team project designing, deploying, and collecting and analyzing data from a honeypot. The hands-on nature of the course will give students experiential insight about how and why attackers attack and how to engage in protective measures to prevent attacks.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program.

0101	Bertrand Sobesto Tu 6:30pm - 9:15pm	Seats (Total: 52) PHY 4311

HACS208A **Accounting and Economic Aspects of Cybersecurity**

Credits: 3	Grading Method: Regular, Pass-Fail	General Education: DSHS, SCIS

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program.

In today's interconnected digital world, cybersecurity has become one of the most important issues confronting organizations in both the private and public sectors of an economy. Indeed, cybersecurity is a national and economic security priority in countries throughout the world. This is an interdisciplinary Honors Seminar offered as part of UMD's ACES program. The primary objective of this course is to discuss the relationships among accounting, economics and cybersecurity, with a focus on the important roles of accounting and economics in understanding the issues related to cybersecurity. A basic framework for assessing the interactions among accounting, economics, and cybersecurity will be developed and discussed. A secondary objective of the course is to assist ACES students in developing their ability to conduct original and applied research on topics related to "accounting and economic aspects of cybersecurity."

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program. Repeatable to 6 credits if content differs.

0101	Lawrence Gordon	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	VMH 1311

HACS208E **Introduction to Reverse Engineering**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program.

An introduction to software reverse engineering tools and methodologies. Fundamental topics will be introduced: compilers, linkers, loaders, assembly language, as well as static and dynamic analysis tools. We will motivate some reasons for software reverse engineering and examine the background material necessary for an understanding of the subject. This will include computer architecture and low-level systems programming, as well as an introduction to x86_64 assembly language. We will apply this newly acquired knowledge while learning about static and dynamic analysis tools used by practitioners of software reverse engineering.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program. Repeatable to 6 credits if content differs.

0101	Aaron Hertz	Seats (Total: 24)
	W 3:00pm - 5:45pm	PFR 1105

HACS208I **Security Incident Handling and Management**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program.

Examines the many roles, capabilities, organizations, and objectives involved in security incident handling and management. Core course content includes three major components: learning about the skill sets that people use, participating in role playing exercises that increasingly build upon this knowledge, and finally conducting exercises in a lab environment simulating security incident discovery, handling, and management.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program. Repeatable to 6 credits if content differs.

0101	Paul Bellis	Seats (Total: 30)
	Tu 5:00pm - 7:45pm	PFR 1111

HACS208Z **Seminar in Cybersecurity; Methods for Solving and Not Solving Puzzles**

Credits: 3 Grading Method: Regular, Pass-Fail

Explores various lenses of cybersecurity in order to promote an interdisciplinary understanding of the field. Although each section may focus on a different topic, each integrates active student engagement, communication, critical communication, critical thinking, and teamwork.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program

0101	Zulema Belyeu	Seats (Total: 30)
	Th 5:30pm - 8:15pm	PFR 1111

HACS287 **Undergraduate Research in Cybersecurity**

(Perm req)

Credits: 3 Grading Method: Regular General Education: DSSP

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program; and permission of UGST-HCOL-ACES Cybersecurity Program.

The Advanced Cybersecurity Experience for Students (ACES) program encourages its students to engage in research in order to gain greater insight into a specific area within cybersecurity, obtain an appreciation for the subtleties and difficulties associated with the production of knowledge and fundamental new applications, and to prepare for graduate school and the workforce.

Contact department for information to register for this course.

HACS297 **Cybersecurity Experience Reflection**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program; and permission of UGST-HCOL-ACES Cybersecurity Program.

Cybersecurity experience is defined as an experiential learning activity either with a University of Maryland entity (such as the Division of Information Technology, the ACES competition team or in an ACES outreach program), or with an external organization that will provide valuable, hands-on experience to supplement the knowledge learned in the other ACES coursework.

0101	Cassie Harrington TuTh 12:30pm - 1:45pm	Seats (Total: 25) PFR 1111

HACS318A **Cybersecurity Professionals Colloquium Series; Current Issues**

Credits: 1 Grading Method: Regular, Pass-Fail

The Cybersecurity Professionals Colloquium Series explores various lenses of cybersecurity in order to promote an interdisciplinary understanding of the field. The colloquium series consists of guest lectures of cybersecurity professionals. In written assignments, students will not only summarize the lecture content but also reflect on the significance of the lecture content for the field of cybersecurity.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program

0101	Lindsey Schrott, Abbey Hedin W 6:30pm - 8:30pm	Seats (Total: 75) PFR 1105

HACS408C **Advanced Seminar in Cybersecurity; Interpersonal Cyber Communications**

Credits: 3 Grading Method: Regular, Pass-Fail

Explores various lenses of cybersecurity in order to promote an interdisciplinary understanding of the field. Although each section may focus on a different topic, each integrates active student engagement, communication, critical communication, critical thinking, and teamwork.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program. Repeatable to 6 credits if content differs.

0101	Megean Garvin Th 6:30pm - 9:15pm	Seats (Total: 26) PHY 4311B

HACS408L **Advanced Seminar in Cybersecurity; Analytical and Forensic Techniques for Cybersecurity**

Credits: 3 Grading Method: Regular, Pass-Fail

Explores various lenses of cybersecurity in order to promote an interdisciplinary understanding of the field. Although each section may focus on a different topic, each integrates active student engagement, communication, critical communication, critical thinking, and teamwork.

0101	Mark Haney	Seats (Total: 26)
	W 3:30pm - 6:15pm	PHY 4311B

HACS408T **Advanced Seminar in Cybersecurity; Penetration Testing**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Explores various lenses of cybersecurity in order to promote an interdisciplinary understanding of the field. Although each section may focus on a different topic, each integrates active student engagement, communication, critical communication, critical thinking, and teamwork.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program. Repeatable to 6 credits if content differs.

0101	Kevin Bock	Seats (Total: 26)
	M 5:00pm - 7:45pm	PHY 4311B

HACS408V **Advanced Seminar in Cybersecurity; Data Analysis and Visualization for Cybersecurity**

Credits: 3

Grading Method: Regular, Pass-Fail

Explores various lenses of cybersecurity in order to promote an interdisciplinary understanding of the field. Although each section may focus on a different topic, each integrates active student engagement, communication, critical communication, critical thinking, and teamwork.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program. Repeatable to 6 credits if content differs.

0101	Edward Condon	Seats (Total: 26)
	TuTh 5:00pm - 6:15pm	PHY 4311B

HACS479 **Undergraduate Research in Cybersecurity**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

The Advanced Cybersecurity Experience for Students (ACES) program encourages its students to engage in research in order to gain greater insight into a specific area within cybersecurity, obtain an appreciation for the subtleties and difficulties associated with the production of knowledge and fundamental new applications, and to prepare for graduate school and the workforce.

Contact department for information to register for this course.

HACS498 **Cybersecurity Group Problem Solving**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

The Advanced Cybersecurity Experience for Students (ACES) program encourages its students to engage in team problem solving activities in order to gain greater insight into a specific area within cybersecurity and to obtain an appreciation for the subtleties and difficulties associated with these activities in order to prepare students for graduate school and the workforce. Students engage in a semester long problem solving or development project under the mentorship of a industry specialist and with the guidance of university faculty. Through the exercise the students will develop teamwork experience and professional communication skills in addition to experience of the project itself. The project might be evaluation, creation, testing or analysis of some area of cybersecurity as needed by the mentor-sponsor. A contract of what will be accomplished is required must be agreed upon by the mentor, the student and the ACES leadership before the project can begin.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program; and permission of UGST-HCOL- ACES Cybersecurity Program.

0101	Neal Ziring Contact instructor or department for details.	Seats (Total: 8)
0201	Jasmon Bailey Contact instructor or department for details.	Seats (Total: 9)
0301	Joseph Dougherty Contact instructor or department for details.	Seats (Total: 10)

HDCC Design Cultures and Creativity Spring 2022

HDCC106 **Seminar in Design Cultures & Creativity**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Restriction: Must be in the Design Cultures and Creativity Honors College Living/Learning program.

Introduction to the methods and theory of design production, with emphasis on creative and expressive platforms.

0101	Alexis Lothian MW 4:00pm - 5:15pm	Seats (Total: 18) PFR 1111
0201	Jessica Lu TuTh 9:30am - 10:45am	Seats (Total: 18) PFR 1111

0301	Jose Calderon TuTh 12:30pm - 1:45pm	Seats (Total: 18) PFR 1105
0401	Victoria Van Hyning TuTh 2:00pm - 3:15pm	Seats (Total: 18) PFR 1111

HDCC209A **Capstone in Design Cultures and Creativity**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Capstone for Design Cultures and Creativity in which students will develop their program capstone projects under the supervision of a faculty mentor, with regular checkpoints and presentations to track progress.

0101	Eva Peskin W 5:00pm - 7:30pm	Seats (Total: 15) ONLINE

HDCC209B **Capstone in Design Cultures and Creativity**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Capstone for Design Cultures and Creativity in which students will develop their program capstone projects under the supervision of a faculty mentor, with regular checkpoints and presentations to track progress.

0101	Danielle Abe Tu 7:00pm - 9:30pm	Seats (Total: 15) PFR 0111

HDCC209C **Capstone in Design Cultures and Creativity**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Capstone for Design Cultures and Creativity in which students will develop their program capstone projects under the supervision of a faculty mentor, with regular checkpoints and presentations to track progress.

0101	Jessica Lu M 4:00pm - 6:30pm	Seats (Total: 16) PFR 0111

HDCC209D **Capstone in Design Cultures and Creativity**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Capstone for Design Cultures and Creativity in which students will develop their program capstone projects under the supervision of a faculty mentor, with regular checkpoints and presentations to track progress.

0101	Porter Olsen Th 4:00pm - 6:30pm	Seats (Total: 15) PFR 0111

HDCC379 **Design Cultures and Creativity Independent Study**

Credits: 1-3 | Grading Method: Regular, Pass-Fail

Involves research and/or creative scholarship directed by individual DCC faculty outside of the formal classroom structure.

0101	Jason Farman Contact instructor or department for details.	Seats (Total: 5)

HEBR Hebrew Spring 2022

HEBR107 **Intensive Elementary Hebrew II**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HEBR106 or HEBR111; or must have appropriate score on Foreign Language Placement Assessment; or students who have taken courses with comparable content may contact the department. Credit only granted for: HEBR107 or HEBR112.

A continuation of intensive study of fundamentals of Hebrew reading, writing, listening, speaking and Israeli culture. Covers past tense in all verb categories, basic syntax and builds vocabulary.

0101	Avital Karpman TuTh 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 15) JMZ 1124 ONLINE
0201	Avital Karpman TuTh 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 15) JMZ 1124 ONLINE

For other courses, see JWST - Jewish Studies.

HEBR112 **Elementary Hebrew II**

Credits: 6

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HEBR111; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not have completed HEBR103; and must not have completed HEBR104. Credit only granted for: (HEBR103 and HEBR104) or HEBR112.

Continuation of HEBR 111.

Contact department for information to register for this course.

HEBR207 **Intensive Intermediate Hebrew II**

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed HEBR206 OR HEBR211; or have the appropriate Score on the Foreign Language Placement Assessment; or students who have taken courses with comparable content may contact the department. Credit only granted for: HEBR207 or HEBR212.

A review of the fundamentals of Hebrew grammar, reading, writing, listening and speaking.

0101	Avital Karpman	Seats (Total: 15)
	TuTh 12:30pm - 1:45pm	JMZ 1124
	Class time/details on ELMs	ONLINE

HEBR212 **Intermediate Hebrew II**

Credits: 6

Grading Method: Regular, Pass-Fail, Audit

CORE: HO

Prerequisite: HEBR211; or permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Must not have completed HEBR203; and must not have completed HEBR204. Credit only granted for: (HEBR203 and HEBR204) or HEBR212.

Continuation of HEBR211.

Contact department for information to register for this course.

HEBR249G **Special Topics in Hebrew Studies; Gender and Identity in Israeli Culture**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

A broad range of cultural and societal topics pertaining to the communication of Hebrew.

Prerequisite: HEBR207, HEBR212, or equivalent background experience. This course examines news clips, literature, music, podcasts, television and movies related to gender in modern Israeli society. Taught in Hebrew.

0101	Aliza Sandalon	Seats (Total: 15)
	Class time/details on ELMs	ONLINE

HEBR298B **Introduction to the Hebrew Bible/Old Testament**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Cross-listed with: JWST262, ENGL262. Credit only granted for: JWST262, HEBR293B, or ENGL262.

Origins of the Hebrew Bible (Old Testament), with attention to literary formations, archaeology, and social-political settings. Explorations of major questions, including who wrote the Bible, and when; relationships of the biblical tradition to the mythology and religious structures of ancient Israel's near eastern neighbors; and dynamics of politics, religious leadership, and law.

Contact department for information to register for this course.

HEBR314 **Conversation and Composition II**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Prerequisite: HEBR313; or students who have taken courses with comparable content may contact the department.

A practical language course recommended for all students continuing with Hebrew. Review of grammar and composition. Selected readings. Oral and written exercises.

0101	Aliza Sandalon	Seats (Total: 15)
	Class time/details on ELMs	ONLINE

HEBR369A **Special Topics in Study Abroad III; Hebrew Lower Advanced**

Credits: 6 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HEBR369B **Special Topics in Study Abroad III; Hebrew Lower Advanced**

Credits: 6 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HEBR369C **Special Topics in Study Abroad III; Hebrew Upper Advanced**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HEBR369D **Special Topics in Study Abroad III; Hebrew Upper Intermediate**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HEBR381 **Introduction to Hebrew Cultural Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HEBR314; or permission of instructor.

Critical study of Israeli culture with emphasis on literature, film, and art as sites of struggle over political and social meaning during times of cultural transformation. Focus on the historical development of Israeli identity and gender, in particular within the military and Zionist youth movements. Taught in Hebrew.

Contact department for information to register for this course.

HEBR386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Restriction: Must have a Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor; and junior standing or higher.

Contact the department to obtain section numbers.

Contact department for information to register for this course.

HEBR499 **Independent Study in Hebrew**

(Perm req)

Credits: 1-3 Grading Method: Regular

Independent study under faculty supervision.

Contact the department to obtain section numbers.

Contact department for information to register for this course.

HEIP Entrepreneurship and Innovation Spring 2022

HEIP241 **EIP Capstone: Creating Enterprise with Social Impact**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Entrepreneurship and Innovation Program (EIP).

Addresses the global necessity to develop and implement solutions to critical social and environmental concerns in ways that are both technologically viable and economically sustainable. Through group exercises, guest speakers, discussions, and experiential learning activities, students will develop the skills to create businesses that achieve the double bottom line of both profitability and social benefit.

0101	Jay Smith, John Jabara MW 5:00pm - 5:50pm	Seats (Total: 20) ONLINE
0201	Jay Smith TuTh 5:00pm - 5:50pm	Seats (Total: 20) ONLINE
0301	Jay Smith, John Jabara MW 3:00pm - 3:50pm	Seats (Total: 20) ONLINE

HESI Higher Ed, Student Affairs, and International Ed Policy Spring 2022

HESI217 **Introduction to Student Leadership**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Restriction: Freshman standing; or sophomore standing.

Introduction to leadership theories, concepts, and skills. Completion of personal and leadership self-assessments, values exploration, and small group application.

Students must pay a $32.00 materials fee. Contact leadershipstudies leadershipstudies@umd.edu with questions.

0101	Noel Kuriakos TuTh 2:00pm - 3:15pm	Seats (Total: 25) TWS 1320
0201	Shakia Asamoah TuTh 12:30pm - 1:45pm	Seats (Total: 25) ESJ 1309

0301	Jia Zheng MW 11:00am - 12:15pm	Seats (Total: 25) TWS 0236
0401	Jia Zheng MW 4:00pm - 5:15pm	Seats (Total: 25) TYD 2106

HESI310 **Transfer2Terp Learning Community: Applying Your Strengths at the University of Maryland and Beyond**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Priority will be given to students transferring from Maryland Community Colleges; or permission of EDUC-Counseling, Higher Education and Special Education department.

Students will identify their strengths and learn how to apply them both in and outside of the classroom. Students will work side by side with the faculty and staff in the Adele H. Stamp Student Union to learn about their strengths while applying them to leadership positions.

0101	Bria Bennett TuTh 11:00am - 12:15pm	Seats (Total: 18) EDU 3233
0201	Denise McHugh TuTh 12:30pm - 1:45pm	Seats (Total: 15) SSU 0110

HESI315 **Student Leadership in Groups and Organizations**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HESI217. Credit only granted for: HESI315 or EDCP315. Formerly: EDCP315.

Acquiring and integrating leadership knowledge within group and organizational contexts so that students can navigate organizational environments and apply leadership in diverse communities of practice and career contexts.

This is a Global Classrooms course, developed in partnership with the Office of International Affairs (OIA) to provide opportunities for virtual, project-based, international collaboration. Learn more about Global Classrooms: go.umd.edu/gci. Students must pay a $15 materials fee. Contact leadershipstudies@umd.edu for permission to enroll.

0101	Ashley Hixson W 4:00pm - 6:45pm	Seats (Total: 20) TWS 1320

HESI318E **Applied Contextual Leadership; Exploring Strengths and Values for Effective Leadership**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Course will utilize experiential learning opportunities to develop and apply the knowledge and skills of leadership into specific contexts of leadership practice.

Students with previous credit for HESI418E Strengths-Based Leadership are not eligible to take this course. Contact leadershipstudies@umd.edu with questions. Students will explore strengths and values of individuals and teams to better understand how to engage in effective, collaborative leadership. Tools such as the Gallup Organization's Clifton Strengths Assessment will be used with a critical lens. Themes ofteamwork, problem-solving, coaching others, and conflict resolution are woven throughout the course.

0101	Noel Kuriakos TuTh 11:00am - 12:15pm	Seats (Total: 25) TWS 1313

HESI318F **Applied Contextual Leadership; Facilitating Leadership Learning**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Course will utilize experiential learning opportunities to develop and apply the knowledge and skills of leadership into specific contexts of leadership practice.

Contact leadershipstudies@umd.edu for details and permission to enroll. Designed for students in peer leadership programs and those interested in leadership training and development both within and beyond college. Topics include leadership theory, learning theory and design, facilitation skills, individual and group development, and identity and cultural considerations. Course uses a variety of experiential activities and practice opportunities.

0101	Myles Alexander M 5:00pm - 7:45pm	Seats (Total: 20) EDU 2119

HESI318G **Applied Contextual Leadership; Greek Presidents Class**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Course will utilize experiential learning opportunities to develop and apply the knowledge and skills of leadership into specific contexts of leadership practice.

Course restricted to Fraternity and Sorority Presidents. For permission, please contact Tyler Huddleston at thuddles@umd.edu

0101	Tyler Huddleston W 3:30pm - 6:30pm	Seats (Total: 55) TWS 1100

HESI318O **Applied Contextual Leadership; Orientation Leader**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Course will utilize experiential learning opportunities to develop and apply the knowledge and skills of leadership into specific contexts of leadership practice.

Restriction: Permission of department.

0101	Ena Walker, Gerry Strumpf, Janae Cruz Tu 6:00pm - 8:30pm	Seats (Total: 30) TWS 1320
	Restricted to students hired to be on the 2022 Orientation Staff	

HESI318R **Applied Contextual Leadership; Foundations and Applications of Challenge Course Theory and Instruction**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Course will utilize experiential learning opportunities to develop and apply the knowledge and skills of leadership into specific contexts of leadership practice.

Permission of Instructor needed. Required course to become a Challenge Course facilitator with the RecWell Adventure Program. Contact Meghan Loughry at mloughry@umd.edu to schedule an interview.

0101	Meghan Loughry M 6:00pm - 9:00pm	Seats (Total: 12) ERC B0170E

HESI318T **Applied Contextual Leadership; Foundations and Applications of Adventure Leadership Instruction**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Course will utilize experiential learning opportunities to develop and apply the knowledge and skills of leadership into specific contexts of leadership practice.

Permission of Instructor needed. Required course to become an Adventure Trip Leader with the RecWell Adventure Program. Contact Amanda Preperato at aprep@umd.edu to schedule an interview.

0101	Alex Gebhart, Amanda Preperato W 6:00pm - 9:00pm	Seats (Total: 8) ERC B0170E

HESI321 **Advanced Social Action Seminar**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HESI217 and HESI320. Restriction: Limited to Minor in Leadership Studies students only.

The use of leadership theories to inform the practice of addressing social issues in society, on campus, or within the surrounding community. Students will: identify a current and compelling social issue; explore the historical, social, and political aspects of social issues; identify and select applicable leadership theories to confront the social issue; create and develop a plan that integrates leadership theories and the social issue; and implement and evaluate the overall social action project. Focuses on executing, implementing, and assessing a social action project in small groups and teams.

This course includes occasional live virtual meetings with dates/times TBD once students are enrolled. Contact leadershipstudies@umd.edu for permission to enroll.

0101	Melissa Rocco	Seats (Total: 10)
	Class time/details on ELMs	ONLINE

HESI417 **Advanced Leadership Seminar**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HESI217; or students who have taken courses with comparable content may contact the department. Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department. Credit only granted for: EDCP417 or HESI417.

Students will analyze and synthesize the concept of leadership using cultural, ethical, sociological, historical perspectives. Exploration and reflection of personal values, decision making, in-depth analysis on various leadership activities. Theories will be emphasized.

Capstone course for students in the Leadership Studies Program. Contact leadershipstudies@umd.edu for permission to enroll.

0101	Shakia Asamoah	Seats (Total: 25)
	F 9:00am - 11:45am	ESJ 1309
	Class time/details on ELMs	ONLINE

HESI418B **Leadership and the Black Community**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DVCC

Credit only granted for: HESI418B or HESI421. Formerly: HESI 418B.

Examines leadership from the perspective of the African American experience. Specifically, we will explore the concept and differing meanings of "leader and leadership" within the African-American community in the United States. Issues of leaders and leadership will be examined as influenced by political, cultural, and historic events. The course will place particular emphasis on colleges and universities as a microcosm of the larger society and as a cultural site for exploring and assessing issues of African American leadership.

0101	Brandon Dula	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	EDU 3236

HESI418F **Special Topics in Leadership: Jewish Leadership**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVCC

Credit only granted for: HESI418F or HESI424. Formerly: HESI418F.

Offers students the opportunity to critically examine leadership and leadership identity development in relation to Jewish culture and identity. Explores how Jewish culture and ethnicity influence leadership styles and the role that leadership has played within Jewish history. Students will explore general leadership theories as well as personal leadership identity development in both an overall sense and as a member of the Jewish community. Examines leaders within the Jewish movement and how their leadership has influenced Jewish communities and explores issues facing the Jewish community both on college campuses and in the world and prepare student leaders to act as advocates for the Jewish community.

0101	Ari Israel	Seats (Total: 35)
	M 2:00pm - 4:45pm	TYD 1118

HESI418G **Women and Leadership**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVCC

Credit only granted for: HESI418G or HESI422. Formerly: HESI418G.

The primary goal of this course is for students to develop an understanding of women's leadership and women's ways of influencing organizations. The course will rely heavily on the idea that you must know yourself first before you explore how "you" fit into the organization and how that organization fits into a broader context such as nation, culture, or community. We will talk about the social constructs of leadership and gender, including systems and structures, and the role media, television, movies, and sports play in defining women and their leadership in a cultural context. The exploration of women leaders will be broad based including the role that gender identity and expression, race, sexual orientation, country of origin, and ethnicity/culture play in women's definition and the expression of their leadership.

0101	Marsha Guenzler-Stevens Tu 2:00pm - 4:45pm	Seats (Total: 20) TWS 1321

HESI489 **Field Experiences in Higher Education, Student Affairs, and International Education Policy**

Credits: 1-4 Grading Method: Regular, Pass-Fail, Audit

Planned field experience in education and community related activities. Credit not to be granted for experiences accrued prior to registration.

1301	Melissa Rocco Contact instructor or department for details.	Seats (Total: 3)
1501	Marsha Guenzler-Stevens Contact instructor or department for details.	Seats (Total: 10)
7301	Kimberly Griffin Contact instructor or department for details.	Seats (Total: 10)

HESI655 **Organizational Dimensions of Student Affairs**

Credits: 3 Grading Method: Regular

Prerequisite: EDCP610; or permission of EDUC-Counseling, Higher Education and Special Education department. Credit only granted for: EDCP655 or HESI655. Formerly: EDCP655.

Exploration of leadership and organizational change of student affairs programs in post-secondary education.

0101	Jamie Riley Th 5:30pm - 8:15pm	Seats (Total: 6) ONLINE

HESI771 **The College Student**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: EDCP771 or HESI771. Formerly: EDCP771.

A demographic study of the characteristics of college students as well as a study of their aspirations, values, and purposes.

This is a Global Classrooms course, developed in partnership with the Office of International Affairs (OIA) to provide opportunities for virtual, project-based, international collaboration. Learn more about Global Classrooms: go.umd.edu/gci.

0101	Darren Pierre W 9:00am - 11:45am	Seats (Total: 20) EDU 3236

HESI773 **Designing Qualitative Research in Counseling and Student Affairs Contexts**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: EDCP773 or HESI773. Formerly: EDCP773.

Introduction to philosophical and epistemological foundations, methodologies and methods associated with qualitative research designs appropriate in student affairs and counseling contexts.

0101	Shelvia English Th 4:30pm - 7:15pm	Seats (Total: 20) EDU 0220

HESP Hearing and Speech Sciences Spring 2022

HESP120 **Introduction to Linguistics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB General Education: DSHS, DSSP

Additional information: HESP120 is required for HESP majors. HESP majors may not substitute LING200.

An introduction to the scientific study of natural language with focus on the basic concepts of phonology, syntax, semantics and pragmatics, with subsequent attention to the applied aspects of linguistic principles.

0101	Michelle Morrison TuTh 3:30pm - 4:45pm	Seats (Total: 45) ASY 3207
0201	Dominique Mwepu TuTh 6:00pm - 7:15pm	Seats (Total: 45) TYD 2109

HESP202 **Introduction to Hearing and Speech Sciences**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An introduction to communication sciences and disorders; a survey of the bases of normal speech, language and hearing ability, major forms of communicative disorders and their treatment.

0101	Kathleen Skinker	Seats (Total: 99)
	TuTh 9:30am - 10:45am	TYD 0117

HESP204 **Multicultural Issues in Communication and Communication Disorders**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVCC

This course will enable students to understand cultural influences on communication, communication disorders, language, and society. Exploration of (self and others') perceptions, stereotypes, media influences and identity will be used to understand how society shapes and responds to language usage. We will also the legal and ethical implications of serving culturally and linguistically diverse populations.

0101	Eusebia Mont	Seats (Total: 45)
	TuTh 9:30am - 10:45am	ARC 1103

HESP214 **The Research Behind Headlines on Words, Thought, and Behavior**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, SCIS

Cross-listed with: HNUH278A. Credit only granted for: HNUH278A or HESP214.

How does the human mind use language? Type "Language Science News" into your Google search bar. Among the more than 3 billion hits, headlines like "What is love? It depends what language you speak" and "Science's English dominance hinders diversity" invite you to think about the impact of words on thought and behavior. These are stories about how humans acquire and use language, but they ultimately address big questions about how we experience knowledge itself. In a world of unprecedented access to science journalism, did you ever read a headline about human behavior and wonder: How do we know? This class takes up the elegant ways cognitive scientists design experiments to answer crucial questions about language and thought, brain and behavior, that have no intuitive answers. Students will dive deep into the media coverage of their favorite claims about what we know, debate the psychological science behind these claims, and develop transferable critical-thinking skills in the process.

0101	Jared Novick	Seats (Total: 45)
	TuTh 11:00am - 12:15pm	ASY 3203

HESP300 **Introduction to Psycholinguistics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in HESP202; or permission of BSOS-Hearing & Speech Sciences department. Recommended: HESP120.

An introduction to current theories of language and an investigation of their relationship to human communication behavior. Survey of the experimental literature relating to this question.

0101	Nan Ratner	Seats (Total: 53)
	TuTh 9:30am - 10:45am	TYD 1101

HESP303 **Phonetic transcription**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of instructor.

An introduction to broad and narrow phonetic transcription, and to physiology of speech production. The primary goal of the course is to provide knowledge about phonetics and the ability to use this knowledge in an applied setting.

PBH1	Michele Walker	Seats (Total: 30)
	Th 6:30pm - 8:10pm	TWS 0223
	Must be in the Hearing & Speech in the Evening (HESPIE) program.	

HESP306 **Anatomy and Physiology of Speech & Hearing**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of instructor.

This is a 4-credit course focusing on the biological and neurological bases of human speech production and human hearing, namely the anatomy, physiology, and neurology of the vocal/speech mechanism and the hearing mechanism.Specifically, respiration, phonation, resonance, articulation, swallowing, and hearing will be highlighted. A strong understanding of normal anatomy and physiology is essential for the successful evaluation and treatment of patients with speech, language, swallowing and hearing disorders.

PBH1	Dawn Marsiglia, Fathima Zuhurudeen	Seats (Total: 30)	
	Tu 6:00pm - 8:30pm	KNI 1103	
	Class time/details on ELMs	ONLINE	Discussion
	Must be in the Hearing & Speech in the Evening (HESPIE) program.		

HESP311 **Anatomy, Pathology and Physiology of the Auditory System**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in HESP202; or permission of BSOS-Hearing & Speech Sciences department.

Gross anatomy of the ear and pathways for transmission of sound energy through the peripheral and central auditory system. Causes, development and effects of pathological conditions contributing to temporary or chronic hearing impairments.

0101	Miranda Cleary	Seats (Total: 48)
	TuTh 2:00pm - 3:15pm	LEF 2166

HESP386 **Experiential Learning**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Restriction: Junior standing or higher; and permission of BSOS-Hearing & Speech Sciences department.

Students will have the opportunity observe and/or participate in therapy activities provided by a speech-language pathologist or audiologist in this experiential learning course.

Contact department for information to register for this course.

HESP388 **Undergraduate Research Externship**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Off-campus research internship with departmental affiliates at National Institutes of Health and regional universities. Contact department chairman for openings and descriptions of eligible placements.

Contact department for information to register for this course.

HESP389 **LEAP Classroom Internship**

Credits: 1-3 Grading Method: Regular

Participation in a language-based, literacy-rich preschool classroom for children with speech-language disorders. Students will learn behavior management techniques, curriculum planning and implementation, facilitation of play among children, data collection and teaching srategies.

Contact department for information to register for this course.

HESP400 **Speech and Language Development in Children**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in HESP300; or permission of BSOS-Hearing & Speech Sciences department. Recommended: LING200 or HESP120. Restriction: Must be in Hearing and Speech Sciences program; or permission of BSOS-Hearing & Speech Sciences department.

Analysis of the normal processes of speech and language development in children.

0101	Eliza Thompson TuTh 9:30am - 10:45am	Seats (Total: 35) ASY 3211

HESP402 **Language and Phonological Disorders in Children**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in HESP400; or permission of BSOS-Hearing & Speech Sciences department. Restriction: Must be in Hearing and Speech Sciences program.

Etiology, assessment and treatment of language and phonological disorders in children.

0101	Nan Ratner TuTh 12:30pm - 1:45pm	Seats (Total: 48) TYD 1102
PDH1	Karen Miranda Th 6:00pm - 8:30pm *Must be in the Hearing & Speech in the Evening (HESPIE) program.*	Seats (Total: 25) ONLINE

HESP403 **Introduction to Phonetic Science**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in HESP305; or permission of BSOS-Hearing & Speech Sciences department. Restriction: Must be in Hearing and Speech Sciences program; or permission of BSOS-Hearing & Speech Sciences department.

An introduction to physiological, acoustic and perceptual phonetics; broad and narrow phonetic transcription; current models of speech production and perception.

0101	Margaritis Fourakis TuTh 11:00am - 12:15pm	Seats (Total: 40) SQH 1105

HESP407 **Bases of Hearing Science**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in HESP311; or permission of BSOS-Hearing & Speech Sciences department. Restriction: Must be in Hearing and Speech Sciences program; or permission of BSOS-Hearing & Speech Sciences department.

Fundamentals of hearing, including the physics of sound, anatomy and physiology of peripheral and central auditory nervous system, psychophysical procedures used in measurement of auditory sensation and perception, and topics in psychological acoustics.

0101	Matthew Goupell	Seats (Total: 60)
	MW 3:30pm - 4:45pm	HJP 2242

HESP411 **Introduction to Audiology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in HESP311; or permission of BSOS-Hearing & Speech Sciences department. Restriction: Must be in Hearing and Speech Sciences program; or permission of BSOS-Hearing & Speech Sciences department.

An introduction to the field of audiology. Evaluation and remediation of hearing handicaps.

0101	Sarah Sohns	Seats (Total: 42)
	TuTh 3:30pm - 4:45pm	BPS 1243

HESP413 **Aural Rehabilitation/Habilitation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HESP411. Restriction: Sophomore standing or higher.

The fundamental aspects of aural rehabilitation therapy for both adults and children are introduced to students. Class time will consist of lectures, discussions, and hands-on activities.

0101	Eric Hoover	Seats (Total: 50)
	TuTh 9:30am - 10:45am	VMH 1203

HESP415 **Principles and Methods in Speech-Language Pathology**

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: HESP400. Restriction: Must be in Hearing and Speech Sciences program.

The principles and methods required to provide treatment of speech and language disorders to children and adults. Topics include writing goals and objectives, programming,teaching strategies,session design, data collection, behavior modification and counseling.

0101	Carlene Reid	Seats (Total: 45)	
	F 11:00am - 12:40pm	TYD 1102	

HESP417 **Principles and Methods in Speech-Language Pathology and Audiology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HESP400 and HESP411; or permission of BSOS-Hearing & Speech Sciences department. Restriction: Must be in Hearing and Speech Sciences program; or permission of BSOS-Hearing & Speech Sciences department.

The principles underlying the treatment of speech, language and hearing disorders in children and adults.

PDH1	Kristina Kubistal-Meeks, Kimberly Jenkins	Seats (Total: 25)	
	M 6:30pm - 9:00pm	ONLINE	
	Class time/details on ELMs	ONLINE	Discussion
	Must be in the Hearing & Speech in the Evening (HESPIE) program.		

HESP418A **Clinical Practice in Speech-Language Pathology and Audiology; Audiology Option**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Supervised observation with some direct participation in clinical methods for the treatment of disorders of articulation, fluency, child and adult language; evaluation and habilitation/rehabilitation of hearing impaired children and adults.

For majors only.

0101	Christina Shields	Seats (Total: 10)	
	M 9:00am - 10:50am	LEF 0104A	
	Contact instructor or department for details.		

HESP418B **Clinical Practice in Speech-Language Pathology and Audiology; Speech Pathology Option**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Supervised observation with some direct participation in clinical methods for the treatment of disorders of articulation, fluency, child and adult language; evaluation and habilitation/rehabilitation of hearing impaired children and adults.

0101	Kristin Slawson	Seats (Total: 12)
	Contact instructor or department for details.	
	Contact instructor or department for details.	

HESP468H **Professional Development in Research and Academia; Honors Seminar: Professional Development**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

The purpose of this seminar is to complement your honors project with practical advice on how to navigate successful careers in research and academia. As you progress through your undergraduate years (especially if you work in a lab), you will likely make several unofficial observations about life as a graduate student, postdoc, or professor, and overhear conversations that include new terminology that may be confusing (e.g., research mentorship, grants, conference abstract, tenure). This can create a mysterious aura around what it is like to obtain your PhD and work in academia generally. In this class, we will cover tips and skills that are often passed along informally in the lab; but here, we will discuss these issues overtly from a range of perspectives, experiences, and best practices.

0101	Jared Novick, Matthew Goupell	Seats (Total: 15)
	F 12:00pm - 12:50pm	VMH 1101

HESP469 **Honor Thesis Research**

Credits: 1-3 Grading Method: Regular

Student will develop thesis proposal, conduct research, analyze results, develop and defend final written document.

Contact department for information to register for this course.

HESP469A **Honor Thesis Research**

Credits: 1-3 Grading Method: Regular

Student will develop thesis proposal, conduct research, analyze results, develop and defend final written document.

Contact department for information to register for this course.

HESP469B **Honor Thesis Research**

Credits: 1-3 Grading Method: Regular

Student will develop thesis proposal, conduct research, analyze results, develop and defend final written document.

Contact department for information to register for this course.

HESP498 **Seminar**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics in human communication and its disorders.

Contact department for information to register for this course.

HESP498C **Seminar; Cochlear Implants**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics in human communication and its disorders.

0101	Nicole Nguyen	Seats (Total: 20)
	W 11:00am - 1:30pm	LEF 0135

HESP498D **Seminar; Speech and Swallowing Disorders**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics in human communication and its disorders.

0101	Kathleen Skinker	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	SQH 2113

HESP499 **Independent Study; Topics in the Hearing and Speech Sciences**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

A directed study of selected topics pertaining to human communication and its disorders.

Contact department for information to register for this course.

HESP499H **Independent Study**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

A directed study of selected topics pertaining to human communication and its disorders.

Contact department for information to register for this course.

HESP601 **Foundations of Scientific Inquiry**

Credits: 1 Grading Method: Regular

Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; or permission of Instructor. Additional information: Course meets over three semesters for the duration of the Masters of Speech-Language Pathology program.

Overview of methods of empirical research used in Communication Sciences and Disorders. The course will focus on identifying, critically analyzing, and writing about empirical research.

0101	Jan Edwards	Seats (Total: 25)
	Contact instructor or department for details.	

HESP602 **Advanced Seminar in Neurological Bases of Communication**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: An undergraduate course in human neuroanatomy. Restriction: Permission of BSOS-Hearing & Speech Sciences department.

An advanced discussion of the neural bases of human communication and its disorders, neuroimaging, neural plasticity and neurological evaluations, with emphasis on current developments and critical analysis.

0101	Yasmeen Shah	Seats (Total: 30)
	Th 9:00am - 10:40am	LEF 0135

HESP603 **Seminar in Cultural and Linguistic Diversity in Communication Disorders**

Credits: 1 Grading Method: Regular, Sat-Fail

Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; or permission of Instructor. Additional information: Course meets over four semesters for the duration of the Masters of Speech-Language Pathology program.

Overview of cultural and linguistic diversity (CLD) in general, and the impact of CLD on communication, communication disorders, and the professional practice of Speech-Language Pathology

0101	Eusebia Mont	Seats (Total: 10)
	Contact instructor or department for details.	

HESP611 **Cognitive Disorders in Adults**

Credits: 2

Grading Method: Regular, Audit

Prerequisite: Must have completed or be concurrently enrolled in HESP610; and must have knowledge of basic human neuroanatomy. Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; or permission of instructor.

Etiology, diagnosis and management of cognitive problems of adults associated with aging, brain injury and degenerative conditions.

0101	Yasmeen Shah	Seats (Total: 30)
	Meets January 24, 2022 - March 18, 2022	
	Tu 9:30am - 12:50pm	LEF 0135

HESP612 **Fluency Disorders**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; and permission of BSOS-Hearing & Speech Sciences department. Or permission of instructor.

The nature of fluency disorders. Principles, methods and procedures for the clinical management of fluency disorders in children and adults.

0101	Vivian Sisskin	Seats (Total: 31)
	Meets March 21, 2022 - May 10, 2022	
	Tu 9:20am - 12:50pm	LEF 0135

HESP620 **Speech Production Disorders Across the Lifespan**

Credits: 3

Grading Method: Regular, Audit

Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; or permission of instructor.

Assessment and treatment of phonological, articulatory and resonance disorders arising from various etiologies including developmental conditions, structural abnormalities, and nervous system damage.

0101	Kristin Slawson, Jan Edwards	Seats (Total: 31)
	Th 2:00pm - 4:30pm	LEF 0135

HESP632 **Medical Audiology**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: HESP311. Corequisite: HESP606.

Overview of auditory pathologies, and their assessment and management in the medical setting.

0101	Jennifer Chisholm, Rebecca Bieber	Seats (Total: 30)
	M 5:30pm - 8:00pm	LEF 0135

HESP636 **Geriatric Audiology**

Credits: 3

Grading Method: Regular, Sat-Fail

Prerequisite: HESP606 and HESP700. Restriction: Must be in one of the following programs (Hearing and Speech Sciences: Ph.D. (Doctoral); Clinical Audiology: Au.D. or Ph.D. (Doctoral); Hearing and Speech Sciences: M.A. (Master's)).

Research findings are presented on the physical effects of aging on the auditory periphery and central nervous system, as well as the consequences of aging on behavioral and electrophysiologic measures of auditory function. Clinical implications in the effects of physiologic and cognitive aging on auditory performance will be discussed.

0101	Sandra Gordon-Salant	Seats (Total: 15)
	Tu 4:00pm - 6:30pm	LEF 0135

HESP638 **Research Practicum**

(Perm req)

Credits: 1-3

Grading Method: Sat-Fail, Audit

Analysis, synthesis and integration of knowledge related to current research or clinical issues in human communication and its related disorders.

Contact department for information to register for this course.

HESP639C **Special Topics in Hearing and Speech Sciences; Cochlear Implants**

Credits: 3

Grading Method: Regular, Audit

Intensive coverage of selected topics of current interest.

0101	Nicole Nguyen	Seats (Total: 20)
	W 11:00am - 1:30pm	LEF 0135

HESP639E **Special Topics in Hearing and Speech Sciences; Quantitative Methods for Hearing, Speech, and Language Sciences**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Intensive coverage of selected topics of current interest.

0101	Matthew Goupell	Seats (Total: 16)	
	Th 3:30pm - 6:00pm	LEF 1222	

HESP648B **Clinical Practice in Speech: Therapeutic Procedures**

(Perm req)

Credits: 1-2 Grading Method: Regular

Prerequisite: HESP648A. Restriction: Permission of instructor. Repeatable to 6 credits.

Supervised training in the application of clinical methods in the treatment of speech disorders.

2101	Vivian Sisskin	Seats (Total: 5)	
	Th 12:00pm - 12:50pm	LEF 0135	Lab
2301	Eliza Thompson	Seats (Total: 5)	
	Th 12:00pm - 12:50pm	LEF 0135	Lab
2701	Jose Ortiz	Seats (Total: 5)	
	Th 12:00pm - 12:50pm	LEF 0135	Lab
	M 9:30am - 11:50am	LEF 0135	Lab
2801	Eusebia Mont	Seats (Total: 5)	
	Th 12:00pm - 12:50pm	LEF 0135	Lab
3601	Kristin Slawson	Seats (Total: 5)	
	Th 12:00pm - 12:50pm	LEF 0135	Lab
	F 11:00am - 11:50am	LEF 0135	Lab
3701	Kathryn Dow-Burger	Seats (Total: 5)	
	Th 12:00pm - 12:50pm	LEF 0135	Lab
	W 10:00am - 10:50am	LEF 0135	Lab

HESP649A **Clinical Practice in Audiology: Diagnostic Procedures**

(Perm req)

Credits: 1-2 Grading Method: Regular

Restriction: Permission of instructor. Repeatable to 6 credits.

Supervised training in the application of clinical methods in the diagnosis of hearing disorders.

1101	Lacey Curry W 1:00pm - 2:50pm	Seats (Total: 6) LEF 0104A
1501	Lisa Rickard W 1:00pm - 2:50pm	Seats (Total: 5) LEF 0104A
2401	Christina Shields W 1:00pm - 2:50pm	Seats (Total: 3) LEF 0104A
3201	Nicole Nguyen Contact instructor or department for details.	Seats (Total: 10)
3501	Sarah Sohns W 1:00pm - 2:50pm	Seats (Total: 3) LEF 0104A

HESP649B **Clinical Practice in Audiology - Aural Rehabilitation**

(Perm req)

Credits: 1 Grading Method: Regular

Prerequisite: HESP649A.

A clinical practicum course with individualized instruction, which focuses on the skills necessary to provide intervention and counseling for a wide range of disorders of the auditory system in patients of varying ages and cultural backgrounds. Each student will be various activities across three semesters (Spring YR2, Summer YR2, and Fall YR3). Students may work individually or in pairs to provide hearing loss intervention, auditory training, hearing loss prevention education, and communication strategy training. The student is expected to prepare for each session with a complete clinical plan, educational materials, and counseling strategies. Students must meet with the Audiologist prior to the aural rehabilitation (AR) session to discuss the plan of care. During the visit, the student will perform hearing loss handicap assessments, lead counseling sessions regarding rehabilitative options, make modifications to existing treatment plans/hearing aids, and educate the patient about their hearing. Following the visit, the student will document the encounter according to clinical protocol and ethical standards using the electronic medical records system. All patient-related information will be handled within a secure computer environment which meets HIPAA regulations for protected health information.

Contact department for information to register for this course.

HESP701 **Hearing Aids II**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: HESP700. Restriction: Must be in one of the following programs (Hearing and Speech Sciences: Ph.D. (Doctoral); Clinical Audiology: Au.D. or Ph.D. (Doctoral); Hearing and Speech Sciences: M.A. (Master's)) ; and permission of BSOS-Hearing & Speech Sciences department. Or permission of instructor.

Advanced issues in amplification technology, prescriptive hearing aid selection, and management of amplification systems for special populations.

Alternating face-to-face/online class meetings, see the instructor for details.

0101	Eric Hoover	Seats (Total: 10)
	W 3:30pm - 6:00pm Contact instructor or department for details.	VMH 1101

HESP706 **Advanced Clinical Audiology**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: HESP606; or students who have taken courses with comparable content may contact the department.

Advanced clinical and experimental methods of evaluating the peripheral and central auditory system using acoustic stimuli. Procedural considerations and interpretation of test results.

0101	Samira Anderson	Seats (Total: 20)
	Th 9:00am - 11:30am	WDS 1130

HESP708 **Independent Study**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Individual research projects under guidance of a faculty member.

Contact department for information to register for this course.

HESP724 **Research Design**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Must have completed a course in basic statistics.

Evaluations of research designs, critique of published articles and student involvement in designing experiments on assigned topics.

0101	Yi Ting Huang M 1:00pm - 3:30pm	Seats (Total: 10) LEF 0135

HESP728 **Advanced Clinical Practice in Speech; Advanced Graduate Laboratory Practicum in Speech-Language Pathology**

(Perm req)

Credits: 1-8 Grading Method: Regular

Clinical internship in selected off-campus facilities.

Contact department for information to register for this course.

HESP729 **Advanced Clinical Practice in Audiology; Advanced Graduate Laboratory Practicum in Audiology**

(Perm req)

Credits: 1-8 Grading Method: Regular

Clinical internship in selected off-campus facilities.

1301	Instructor: TBA Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 10)
3201	Nicole Nguyen Contact instructor or department for details.	Seats (Total: 25)

HESP731 **Seminar in Clinical Supervision**

Credits: 1 Grading Method: Regular

Prerequisite: In at least the third year in AuD program.

Supervising students and employees can be a daunting task. Fostering the next generation of doctors of audiology and support staff requires a unique set of knowledge and skills. This course is designed to explore the theoretical concepts in the supervisory paradigm as well as real-world scenarios. Supervision is not a "one-size fits-all" process, therefore the intricacies and strategies of the supervisor-supervisee relationship must be carefully considered.

0101	Nicole Nguyen Tu 2:00pm - 2:50pm	Seats (Total: 10) ASY 3219

HESP788 **Graduate Research Externship**

Credits: 1-3 Grading Method: Regular, Audit

Off-campus research internship with departmental affiliates at National Institutes of Health and other regional universities. Contact department chairman for available placements, requirements and openings.

Contact department for information to register for this course.

HESP799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

HESP829 **Clinical Internship Residency**

Credits: 1-9 Grading Method: Regular, Audit

Off-Campus, full-time (30-40 hours/week) clinical externship in Audiology at regional and national institutions.

1301	Instructor: TBA Contact instructor or department for details.	Seats (Total: 30)
3201	Nicole Nguyen Contact instructor or department for details.	Seats (Total: 5)

HESP849 **Capstone Research Project I**

Credits: 2 Grading Method: Regular

First of two-course sequence leading to the final research requirement for the Doctor of Audiology (Au.D.) degree; involves individual study and/or supervised lab work with mentor, preparation of research proposal (including IRB protocol if required), and attendance at Capstone Research Project Workshop.

Contact department for information to register for this course.

HESP859 **Capstone Research Project II**

Credits: 1-2 Grading Method: Regular

Second of two-course sequence leading to the final research requirement for the Doctor of Audiology (Au.D.) degree; involves final data collection, analysis and presentation of results or completion of scholarly paper under the direction of the faculty mentor.

Contact department for information to register for this course.

HESP898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

HESP899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

HHUM Honors Humanities Spring 2022

HHUM106 **Honors Humanities: The Humanities in Practice**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA | General Education: DSHU, DSSP

Recommended: HHUM105. Restriction: Must be in the Honors Humanities Program. Additional information: Priority enrollment will be given to students in Honors Humanities.

The application of the disciplines, methods and traditions of the Humanities to contemporary problems and issues such as social injustice, immigration, income inequality, and the role of social media. Students will apply to such issues the tools of the Humanities: research and historical analysis, critical reasoning, communication and persuasion, ethical debate, and imagination. The course will utilize the institutions of Washington, D.C. to explore contemporary problems and will guide students in the creation of their individual proposals for the capstone project that is the culmination of the curriculum in Honors Humanities.

0101	Sarah Humud Tu 3:30pm - 4:45pm Th 9:30am - 10:45am	Seats (Total: 23) ESJ 1202 ANA 0120	Discussion
0102	Sarah Humud Tu 3:30pm - 4:45pm Th 11:00am - 12:15pm	Seats (Total: 23) ESJ 1202 ANA 0120	Discussion
0103	Sarah Humud Tu 3:30pm - 4:45pm Th 12:30pm - 1:45pm	Seats (Total: 23) ESJ 1202 ANA 0120	Discussion
0104	Sarah Humud Tu 3:30pm - 4:45pm Th 2:00pm - 3:15pm	Seats (Total: 23) ESJ 1202 ANA 0120	Discussion
0105	Sarah Humud Tu 3:30pm - 4:45pm Th 3:30pm - 4:45pm	Seats (Total: 23) ESJ 1202 ANA 0120	Discussion

HHUM206 **Honors Humanities Keystone Project**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Design, execution and completion of students' chosen Keystone Projects in the form of research, creativity, or service. Students will have formulated tentative plans for their projects in HHUM106; in this course they will revise and augment those proposals, articulate their connections with the traditions and methods of the humanities, formulate a work plan for completing the project within one semester, and work with their fellow students to workshop their materials as they develop. The course will culminate in a presentation of the project at the annual Keystone Symposium and with the submission of the project in its final form.

0101	Randy Ontiveros, Sarah Humud Th 3:30pm - 4:45pm Tu 3:30pm - 4:45pm	Seats (Total: 18) ESJ 1202 ANA 0120	Discussion
0102	Randy Ontiveros, Sarah Humud Th 3:30pm - 4:45pm Tu 12:30pm - 1:45pm	Seats (Total: 18) ESJ 1202 ANA 0120	Discussion
0103	Sarah Humud, Randy Ontiveros Th 3:30pm - 4:45pm Tu 2:00pm - 3:15pm	Seats (Total: 18) ESJ 1202 ANA 0120	Discussion
0104	Randy Ontiveros, Sarah Humud Th 3:30pm - 4:45pm Tu 3:30pm - 4:45pm	Seats (Total: 18) ESJ 1202 ATL 0201	Discussion

HHUM328 **Internship in Honors Humanities**

Credits: 1-3 | Grading Method: Regular, Pass-Fail, Audit

Supervised service-learning in Honors Humanities.

0101	Sarah Humud Contact instructor or department for details.	Seats (Total: 20)	

HHUM329 **Undergraduate Teaching Assistantship**

Credits: 1-3 | Grading Method: Regular, Pass-Fail, Audit

Supervised pedagogical service-learning in the Honors Humanities curriculum.

0101	Sarah Humud	Seats (Total: 5)
	Contact instructor or department for details.	

HISP Historic Preservation Spring 2022

HISP200 **The Everyday and the American Environment**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO, D | General Education: DSHU, DVUP, SCIS

Jointly offered with HISP615.

An introduction to the theories of the everyday within the context of the American built environment. Focuses primarily on the American experience of underrepresented, minority, and/or immigrant communities; both historical and contemporary. Attempts to challenge what is meant by American in describing the American everyday built environment.

0101	Hannah Cameron Tu 3:30pm - 4:45pm Th 12:30pm - 1:45pm	Seats (Total: 19) ASY 2203 JMZ 2123	Discussion
0102	Hannah Cameron Tu 3:30pm - 4:45pm Th 12:30pm - 1:45pm	Seats (Total: 24) ASY 2203 ASY 3221	Discussion
0103	Hannah Cameron Tu 3:30pm - 4:45pm Th 2:00pm - 3:15pm	Seats (Total: 24) ASY 2203 JMZ 0205	Discussion
0104	Hannah Cameron Tu 3:30pm - 4:45pm Th 2:00pm - 3:15pm	Seats (Total: 24) ASY 2203 SQH 1101	Discussion
0105	Hannah Cameron Tu 3:30pm - 4:45pm Th 2:00pm - 3:15pm	Seats (Total: 19) ASY 2203 HBK 1112	Discussion

HISP619O **Special Topics in Historic Preservation; Three-Dimensional Digital Documentation: Using Laser-based Measurement Systems**

(Perm req)

Credits: 3 | Grading Method: Regular, Audit

Technical aspects of preservation taught by practitioners whose expertise are of special benefit to certificate students.

Cross-listed with ARCH478O, ARCH678O, ANTH448R, and ANTH632. Credit only granted for: ARCH478O, ARCH678O, ANTH448R, ANTH632 or HISP619O. This course focuses on the fundamentals of documenting components of the built environment and the landscapes in which they are located. It focuses on the use of lasers to calculate 3-D measurements at various scales, from objects, to buildings, and landscapes. It will cover data management and archiving, field documentation processes, and post-processing of scan point clouds. This includes the production of deliverables for clients or project partners, such as plans, elevations, orthoimagery, and cleaned exported point clouds in formats that are compatible with Autodesk software and other CAD or rendering software platforms. This course is intended for students working in fields that rely on accurately documenting components of the built environment in three dimension, including architects, engineers, preservationists, archaeologists, or digital designers.

0101	Stefan Woehlke	Seats (Total: 15)
	W 2:00pm - 4:40pm	ARC 1115

HISP629 **Independent Studies in Historic Preservation**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Individual Instruction course.

0101	Jeremy Wells	Seats (Total: 5)
	Contact instructor or department for details.	

HISP630 **Preservation Policy and Planning**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of ARCH-Historic Preservation Program. Credit only granted for: HISP619M or HISP630. Formerly: HISP619M.

An opportunity is provided to look in depth at the national historic preservation program that is the federal, tribal, state, and local (city and county) public sector preservation activities being undertaken in accordance with public policy set by laws, regulations, standards, and guidelines.

0101	Rhonda Sincavage	Seats (Total: 15)
	W 7:00pm - 9:40pm	ARC 1117

HISP635 **Social and Ethnic Issues in Historic Preservation Practice**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of ARCH-Historic Preservation Program. Credit only granted for: HISP628E or HISP635. Formerly: HISP628E.

This seminar course examines the broader social and ethnic dimensions of historic preservation practice that have impacted the field since the "culture wars" of the 1990's. Through weekly case studies of local, international sites, students will explore these issues and apply newly emerging methodologies to their final case study project.

0101	Jeremy Wells	Seats (Total: 10)
	Th 7:00pm - 9:40pm	ARC 1117

HISP640 **Historic Preservation Law, Advocacy and Public Policy**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of ARCH-Historic Preservation Program. Credit only granted for: HISP619C or HISP640. Formerly: HISP619C.

Introduce students to legal, advocacy, and public policy issues in the field of historic preservation. Student activities will be designed to teach basic working knowledge of relevant legal subjects, including historic preservation ordinances, state and federal preservation statutes, and important constitutional issues.

0101	Frederick Stachura	Seats (Total: 15)
	M 7:00pm - 9:40pm	ARC 1117

HISP660 **Internship in Historic Preservation**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of ARCH-Historic Preservation Program. Formerly: HISP619.

Students will secure a summer internship with an organization engaged in historic preservation work (this can be a public agency, nonprofit, or private firm). The students will formulate a plan of work and a series of pedagogical goals to satisfy both the practical needs of the project and the academic requirements for the course.

0101	Jeremy Wells	Seats (Total: 15)
	Contact instructor or department for details.	

HISP670 **Conservation of Historic Places: Historic Materials, Building Systems, and Conservation**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of ARCH-Historic Preservation Program. Credit only granted for: HISP619T or HISP670. Formerly: HISP619T.

Introduces students to the analysis of historic buildings, building systems and materials. The overall emphasis is on assessing the condition of a building and its parts, and formulating a preservation strategy based on it. Conservation methods will be discussed through the introduction of philosophies and specific techniques.

0101	Alfonso Narvaez	Seats (Total: 15)
	Tu 7:00pm - 9:40pm	ARC 1117

HISP690 **Historic Preservation Professional Practice**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Permission of instructor.

Students explore management and practice issues in the historic preservation field. Topics include: project management, budgeting, personnel, and grantsmanship. Each topic will be considered in the three main areas of practice - government agencies, non-profits, and for profit companies. Outside speakers from these various practice environments will present on their area of specialization.

0101	John Sprinkle	Seats (Total: 15)
	M 4:00pm - 6:00pm	ARC 1117

HISP701 **Certificate Portfolio Project**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

Prerequisite: Permission of ARCH-Historic Preservation Program.

Students will gather samples of their work and craft a synthetic statement on their experiences in their HISP certificate courses (for example, picking up on themes such as community involvement, diversity of practice, affordable housing, or sustainability), and the ways in which they have integrated historic preservation into their thinking and practice in their home discipline.

0101	Jeremy Wells	Seats (Total: 5)
	Contact instructor or department for details.	

HISP710 **Final Project in Historic Preservation I**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

Credit only granted for: HISP700 or HISP710. Formerly: HISP700.

An independent, applied research project investigating the preservation of a particular site or a specialized issue in historic preservation. This is part one of a two-semester sequence and involves developing the project proposal and bibliography.

0101	Jeremy Wells	Seats (Total: 15)
	Contact instructor or department for details.	

HISP711 **Final Project in Historic Preservation II**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Credit only granted for: HISP700 or HISP711. Formerly: HISP700.

An independent, applied research project invesitgating the preservation of a particular site or a specialized issue in historic preservation. This is part two of a two semester sequence and involves project research and writing.

0101	Jeremy Wells	Seats (Total: 15)
	Contact instructor or department for details.	

HIST History Spring 2022

HIST110 **The Ancient World**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO General Education: DSHU

Interpretation of select literature and art of the ancient Mediterranean world with a view to illuminating the antecedents of modern culture; religion and myth in the ancient Near East; Greek philosophical, scientific, and literary invention; and the Roman tradition in politics and administration.

0101	Elizabeth Conner	Seats (Total: 23)	
	TuTh 9:30am - 10:20am Tu 11:00am - 11:50am	KEY 0106 TLF 2103	Discussion
0102	Elizabeth Conner	Seats (Total: 23)	
	TuTh 9:30am - 10:20am Tu 2:00pm - 2:50pm	KEY 0106 TLF 2108	Discussion
0103	Elizabeth Conner	Seats (Total: 23)	
	TuTh 9:30am - 10:20am Th 2:00pm - 2:50pm	KEY 0106 TLF 2108	Discussion

HIST111 **The Medieval World**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS, DVUP

The development of Europe in the Middle Ages; the role of religious values in shaping new social, economic, and political institutions; medieval literature, art and architecture.

0101	Colleen Ho TuTh 2:00pm - 2:50pm Th 9:30am - 10:20am	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0102	Colleen Ho TuTh 2:00pm - 2:50pm Th 11:00am - 11:50am	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0103	Colleen Ho TuTh 2:00pm - 2:50pm Th 12:30pm - 1:20pm	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0104	Colleen Ho TuTh 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 23) KEY 0106 TLF 2108	Discussion
0105	Colleen Ho TuTh 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 23) KEY 0106 TLF 2108	Discussion
0106	Colleen Ho TuTh 2:00pm - 2:50pm F 12:00pm - 12:50pm	Seats (Total: 23) KEY 0106 TLF 2108	Discussion

HIST131 **The History of the American Dream**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS, SCIS

Credit only granted for: HIST131 or HIST289J. Formerly: HIST289J.

An introduction to the way Americans thought of themselves in the past, and their often conflicting visions of what constituted the American Dream. Central questions will include whether or not Americans have always envisioned their country as a land of equality, opportunity, democracy, and freedom and whether or not their ideas of what these values meant changed or remained the same over time.

0101	Michael Ross TuTh 11:00am - 11:50am F 9:00am - 9:50am	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0102	Michael Ross TuTh 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0103	Michael Ross TuTh 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0104	Michael Ross TuTh 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0105	Michael Ross TuTh 11:00am - 11:50am F 2:00pm - 2:50pm	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0106	Michael Ross TuTh 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 23) KEY 0106 TLF 2103	Discussion

HIST142 **Looking at America through a Global Lens**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS, SCIS

Credit only granted for: HIST289I or HIST142. Formerly: HIST289I.

Looking at America will focus on a thematic approach to the study of foreign -- negative and positive -- perceptions of America in the 20th century.

0101	Saverio Giovacchini TuTh 12:30pm - 1:20pm F 11:00am - 11:50am	Seats (Total: 23) TYD 0117 TLF 1101	Discussion
0102	Saverio Giovacchini TuTh 12:30pm - 1:20pm F 12:00pm - 12:50pm	Seats (Total: 23) TYD 0117 TLF 1101	Discussion

0103	Saverio Giovacchini TuTh 12:30pm - 1:20pm F 2:00pm - 2:50pm	Seats (Total: 23) TYD 0117 TLF 1101	Discussion

HIST200 **Interpreting American History: Beginnings to 1877**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS, DSHU

Credit only granted for: HIST156 or HIST200. Formerly: HIST156.

The United States from colonial times to the end of the Civil War. Establishment and development of American institutions.

0101	Holly Brewer MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 23) ESJ 1215 TLF 2108	Discussion
0102	Holly Brewer MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 23) ESJ 1215 TLF 2108	Discussion
0103	Holly Brewer MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 23) ESJ 1215 TLF 2108	Discussion

HIST201 **Interpreting American History: From 1865 to the Present**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS, DSHU, DVUP

Credit only granted for: HIST157 or HIST201. Formerly: HIST157.

The United States from the end of the Civil War to the present. Economic, social, intellectual, and political developments. Rise of industry and emergence of the United States as a world power.

0101	Howard Smead MW 12:00pm - 12:50pm M 9:00am - 9:50am	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0102	Howard Smead MW 12:00pm - 12:50pm M 10:00am - 10:50am	Seats (Total: 23) KEY 0106 TLF 2103	Discussion

0103	Howard Smead MW 12:00pm - 12:50pm M 1:00pm - 1:50pm	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0104	Howard Smead MW 12:00pm - 12:50pm W 9:00am - 9:50am	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0105	Howard Smead MW 12:00pm - 12:50pm W 10:00am - 10:50am	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0106	Howard Smead MW 12:00pm - 12:50pm W 1:00pm - 1:50pm	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0107	Howard Smead MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 23) KEY 0106 KEY 0100	Discussion
0108	Howard Smead MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 23) KEY 0106 KEY 0100	Discussion
0109	Howard Smead MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 23) KEY 0106 KEY 0100	Discussion
0201	Robert Chiles TuTh 12:30pm - 1:20pm Th 9:30am - 10:20am	Seats (Total: 23) KEY 0106 WDS 1114	Discussion
0202	Robert Chiles TuTh 12:30pm - 1:20pm Th 11:00am - 11:50am	Seats (Total: 23) KEY 0106 KEY 0100	Discussion
0203	Robert Chiles TuTh 12:30pm - 1:20pm Th 2:00pm - 2:50pm	Seats (Total: 23) KEY 0106 KNI 1206	Discussion

0204	Robert Chiles TuTh 12:30pm - 1:20pm F 9:00am - 9:50am	Seats (Total: 23) KEY 0106 TLF 1103	Discussion
0205	Robert Chiles TuTh 12:30pm - 1:20pm F 10:00am - 10:50am	Seats (Total: 23) KEY 0106 TLF 1103	Discussion
0206	Robert Chiles TuTh 12:30pm - 1:20pm F 12:00pm - 12:50pm	Seats (Total: 23) KEY 0106 TLF 1103	Discussion
0301	David Freund MW 2:00pm - 2:50pm W 9:00am - 9:50am	Seats (Total: 23) KEY 0106 TLF 1103	Discussion
0302	David Freund MW 2:00pm - 2:50pm W 10:00am - 10:50am	Seats (Total: 23) KEY 0106 TLF 1103	Discussion
0303	David Freund MW 2:00pm - 2:50pm W 12:00pm - 12:50pm	Seats (Total: 23) KEY 0106 TLF 2103	Discussion

HIST205 **Environmental History**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS, DSHU

An exploration of the way different societies have used, imagined, and managed nature. Includes examination of questions of land use, pollution, conservation, and the ideology of nature, especially but not exclusively in Europe and North America.

0101	Thomas Zeller TuTh 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 23) MMH 1400 KEY 1117	Discussion
0102	Thomas Zeller TuTh 2:00pm - 2:50pm F 12:00pm - 12:50pm	Seats (Total: 23) MMH 1400 KEY 1117	Discussion

0103	Thomas Zeller	Seats (Total: 23)	
	TuTh 2:00pm - 2:50pm	MMH 1400	
	F 1:00pm - 1:50pm	KEY 1117	Discussion

HIST208N **Historical Research and Methods Seminar; America for Americans: Researching & Writing the History of Nativism, Xenophobia, & Anti-immigration in the US**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Reading and research skills and methods. Research papers will be based on the topic of the seminar.

0201	Kyle Pruitt	Seats (Total: 12)
	Tu 12:30pm - 2:20pm	KEY 0117
	Contact instructor or department for details.	

HIST208O **Historical Research and Methods Seminar; Women and Gender in the Middle East**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Reading and research skills and methods. Research papers will be based on the topic of the seminar.

0101	Gamze Yavuzer	Seats (Total: 12)
	W 10:00am - 11:50am	KEY 0117
	Contact instructor or department for details.	
0201	Gamze Yavuzer	Seats (Total: 12)
	W 1:00pm - 2:50pm	KEY 0117
	Contact instructor or department for details.	

HIST208P **Historical Research and Methods Seminar; Can a Movie be "Accurate"? American Films as Historial Sources**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Reading and research skills and methods. Research papers will be based on the topic of the seminar.

0101	Kerry Tanner	Seats (Total: 12)	
	Th 9:30am - 11:20am	ONLINE	
	Class time/details on ELMs	ONLINE	Discussion

0201	Kerry Tanner Th 12:30pm - 2:20pm Class time/details on ELMs	Seats (Total: 12) ONLINE ONLINE	 Discussion

HIST211 **Women in America Since 1880**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHS, DVUP

Cross-listed with: WGSS211. Credit only granted for: HIST211, WMST211 or WGSS211. Formerly: WMST211.

An examination of women's changing roles in working class and middle class families, the effects of industrialization on women's economic activities and status, and women's involvement in political and social struggles, including those for women's rights, birth control, and civil rights.

0101	Robyn Muncy MW 11:00am - 11:50am W 10:00am - 10:50am	Seats (Total: 23) KEY 0106 KEY 0100	 Discussion
0102	Robyn Muncy MW 11:00am - 11:50am W 1:00pm - 1:50pm	Seats (Total: 23) KEY 0106 KEY 0100	 Discussion
0103	Robyn Muncy MW 11:00am - 11:50am W 2:00pm - 2:50pm	Seats (Total: 23) KEY 0106 TLF 2103	 Discussion

HIST219I **Religions of the Ancient Near East**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHU

Cross-listed with: RELS225, JWST225. Credit only granted for: JWST225, HIST219I, RELS225, or RELS219A. Formerly: RELS219A.

Introduction to ancient Near Eastern religious systems and mythology, from the third millennium BCE through the fourth century BCE. Particular emphasis on Mesopotamia and ancient Israel.

Cross-listed with JWST225 and RELS219A. Credit only granted for JWST225, RELS219A and HIST219I.

0101	Matthew Suriano TuTh 11:00am - 12:15pm	Seats (Total: 25) LEF 1220	

HIST219K **Special Topics in History; London and British Empire, 1500-1850**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

HIST219X **Modern Iran**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS

Cross-listed with: PERS251. Credit only granted for: PERS251 or HIST219X.

General sociopolitical introduction to modern Iran from establishment of the Qajar dynasty in the late 18th century to the present day. Taught in English.

Cross-listed with HIST219X. Credit granted for PERS251 or HIST219X. General sociopolitical introduction to modern Iran from establishment of the Qajar dynasty in the late 18th century to the present day. Taught in English.

0101	Ahmet Karamustafa	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	TLF 1103

HIST222 **Immigration and Ethnicity in America**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHS, DVUP

Credit only granted for: AAST222 or HIST222.

The history of immigration and the development of diverse populations i the United States are examined. Topics include related political controversies, the social experiences of immigrants, ethnicity, generations, migration, inter-group relations, race, and diversity in American culture.

0101	Robert Chiles	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	KEY 0103

HIST233 **Empire! The British Imperial Experience 1558-1997**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHS, DVUP

Credit only granted for: HIST219P or HIST233. Formerly: HIST219P.

Britain's empire from the mid-sixteenth century to the late twentieth century, focusing on the encounter between Britain and indigenous peoples. Topics include the origins of British imperialism in Ireland and North America, the slave trade, the East India Company and India, women in empire, transportation and the making of Australia, sex in empire, missionaries, racial theories, and decolonization.

0101	Anne Rush	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	EDU 2119

HIST235 **Divorced, Beheaded, Deposed: England and Britain 1485-1689**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS

British history from the War of the Roses to the Hanoverian succession; Yorkist and Tudor society and politics; the Renaissance and Reformation in England, Henry VIII through Elizabeth I; 17th-century crises and revolutions; intellectual and cultural changes; the beginnings of empire; the achievement of political and intellectual order.

0101	Sabrina Baron	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	KEY 0103

HIST236 **From Peacocks to Punks: Modern Britain from 1688 to Today**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS

British history from the Glorious Revolution of 1688 to the present. The revolution of 1688; the structure of 18th-century society and politics; economic and social change in the Industrial Revolution; 19th- and 20th-century political and social reform; imperialism; the impact of the First and Second World Wars on British society.

0101	Julie Taddeo	Seats (Total: 40)
	TuTh 9:30am - 10:45am	KEY 0103

HIST245 **Reformers, Radicals, and Revolutionaries: The Middle East in the Twentieth Century**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS

Cross-listed with: RELS219K. Credit only granted for: RELS219K or HIST245.

The 20th century was a period of dramatic changes in the Middle East. Within the global context of the two World Wars and the Cold War, countries in the region struggled with the effects of colonialism and painful processes of decolonization. The course offers a thematic-comparative approach to issues such as social and political reform, nationalism, the colonial experience, independence struggles, models of governance, political violence, and Islamism. Course lectures and the analysis and discussion of primary sources will lead students to understand that the peoples of the Middle East found answers to the challenges posed by Western dominance based on their specific historical, cultural and socio-economic circumstances.

0101	Peter Wien	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	KEY 0126

HIST251 **Latin America Since Independence**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHS, DVUP

Cross-listed with: LACS251. Credit only granted for: HIST251, LASC251, or LACS251. Formerly: HIST251 or LASC251.

Introductory survey of the history of Latin America from the era of independence (c. 1810-1825) through the early 1980s. Major themes include independence and sovereignty, postcolonialism and neocolonialism, nation- and state-building, liberalism, citizenship, economic development and modernization, social organization and stratification, race and ethnicity, gender relations, identity politics, reform and revolution, authoritarianism and democratization, and inter-American relations.

Cross-listed with LASC251. Credit granted for HIST251 or LASC251.

Contact department for information to register for this course.

HIST255 **African-American History, 1865 - Present**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHS

An introductory course in the African-American experience in the United States from 1865 to the present. Topics include the aftermath of the Civil War on US race relations, the rise of segregation, northern migration, World War I and II, Civil Rights Movements, and the Black Power Movement.

0101	Quincy Mills	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	TYD 2106

HIST269D **Special Topics in Study Abroad II; Barcelona: The City and Its History**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HIST269K **Special Topics in Study Abroad II; Mediterranean Culture and History**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HIST269M **Special Topics in Study Abroad II; History of Modern Italy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HIST269Y **Special Topics in Study Abroad II; Rome Republic & Empire**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HIST285 **East Asian Civilization II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SH, D General Education: DSHS

A survey of the historical development of modern Asia since 1700. Primarily concerned with the efforts of East Asians to preserve their traditional cultures in the face of Western expansion in the 18th and 19th centuries, and their attempts to survive as nations in the 20th century.

0101	Huiying Chen	Seats (Total: 23)	
	Class time/details on ELMs	ONLINE	
	Class time/details on ELMs	ONLINE	Discussion
0102	Huiying Chen	Seats (Total: 23)	
	Class time/details on ELMs	ONLINE	
	Class time/details on ELMs	ONLINE	Discussion

0103	Huiying Chen	Seats (Total: 23)	
	Class time/details on ELMs	ONLINE	
	Class time/details on ELMs	ONLINE	Discussion

HIST286 **Urban Dreams and Nightmares: The Jewish Experience of Cities**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHS, DVUP

Cross-listed with: JWST275. Credit only granted for: HIST286 or JWST275.

Cities give expression to man's power while they highlight human limitations. It is urban social diversity that makes great wealth and thriving culture possible, but it also fixes discrimination behind walls constructed from paper and stone. Nations make cities symbols of the sacred and the glorious, while they ignore the poverty and social alienation that city life breeds. Jews, intensively urbanized for millennia, provide a special vantage point from which to study the beauty and the tragedy implicit in city-building. Our sources will include the Bible, poems, plays and novels but also US Supreme Court rulings and news of riots in Israel. We will survey how Jews have shaped, and been shaped by, the urban challenge over time and space.

0101	Bernard Cooperman	Seats (Total: 30)	
	TuTh 11:00am - 12:15pm	KEY 1117	

HIST289A **Jews, Christians, and Muslims in Medieval Spain: Tolerance, Oppression, and the Problematic Past**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DVUP, SCIS

Cross-listed with: RELS289C. Credit only granted for: HIST289A or RELS289C.

For 800 years, medieval Spain was home to one of the most religiously diverse societies in European history. Despite frequent hostilities, the interactions of Spanish Jews, Christians, and Muslims produced a flowering of science, theology, and literature in an often remarkably tolerant climate. Students will learn how medieval Spanish people themselves experienced interreligious contact and conflict. They will also discover the modern pressures, prejudices, and ideals that have shaped historians interpretations of medieval Spain.

0101	Janna Bianchini	Seats (Total: 23)	
	MW 11:00am - 11:50am	ESJ 1202	
	M 12:00pm - 12:50pm	TLF 2103	Discussion
0102	Janna Bianchini	Seats (Total: 23)	
	MW 11:00am - 11:50am	ESJ 1202	
	M 2:00pm - 2:50pm	TLF 2103	Discussion

0103	Janna Bianchini MW 11:00am - 11:50am W 9:00am - 9:50am	Seats (Total: 23) ESJ 1202 KEY 0100	Discussion

HIST289N **The Politics of Sexuality in America: A Historical Approach**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS, DVUP, SCIS

Cross-listed with: WGSS298N. Credit only granted for: HIST289N or WGSS298N.

Why do particular issues about sexuality hold such an important place in American political debates? What animates these controversies and what can a historical perspective on these issues add to our understanding of modern sexual politics? This class explores the historical sexual politics that undergird contemporary debates concerning sexuality in America. It focuses on topics that garner significant public attention - Reproductive rights - LGBTQ rights - Sexting - and explores the histories that undergird Americans disagreements.

0101	Clare Lyons MW 10:00am - 10:50am W 12:00pm - 12:50pm	Seats (Total: 23) ONLINE KEY 1117	Discussion
0102	Clare Lyons MW 10:00am - 10:50am W 1:00pm - 1:50pm	Seats (Total: 23) ONLINE KEY 1117	Discussion
0103	Clare Lyons MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 23) ONLINE ONLINE	Discussion

HIST289R **Pocketbook Politics: A History of American Buying and Selling**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, SCIS

Provides a thematic approach to consumerism as it emerged in the United States over the course of three centuries. The history of consumption is a prism through which many aspects of social and political life may be viewed. How does what we wear, what we listen to, or what we eat shape our identities?

0101	Katarina Keane MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 23) KEY 0106 TLF 1101	Discussion

0102	Katarina Keane MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 23) KEY 0106 TLF 1101	Discussion
0103	Katarina Keane MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 23) KEY 0106 TLF 1101	Discussion

HIST289V **What Does It Mean to be An American?**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

This course seeks to understand the on-going crisis over national identity and purpose by examining the many factors that go into the big stew known as America.

0101	Howard Smead MW 10:00am - 10:50am M 12:00pm - 12:50pm	Seats (Total: 23) KEY 0106 TLF 1101	Discussion
0102	Howard Smead MW 10:00am - 10:50am M 1:00pm - 1:50pm	Seats (Total: 23) KEY 0106 TLF 1101	Discussion
0103	Howard Smead MW 10:00am - 10:50am W 12:00pm - 12:50pm	Seats (Total: 23) KEY 0106 TLF 1101	Discussion

HIST289Y **Zombies, Fear, and Contagion: A Cultural History of Public Health, Medicine, and Technology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DSHU, DVUP, SCIS

Historically examines how our fear of zombies reflects changing fears about the body, and anxieties about western medical and technological advancements.

0101	Chantel Rodriguez TuTh 2:00pm - 2:50pm Tu 9:30am - 10:20am	Seats (Total: 23) ONLINE ONLINE	Discussion
0102	Chantel Rodriguez TuTh 2:00pm - 2:50pm Tu 11:00am - 11:50am	Seats (Total: 23) ONLINE ONLINE	Discussion

0103	Chantel Rodriguez TuTh 2:00pm - 2:50pm Tu 12:30pm - 1:20pm	Seats (Total: 23) ONLINE ONLINE	 Discussion
0104	Chantel Rodriguez TuTh 2:00pm - 2:50pm Th 9:30am - 10:20am	Seats (Total: 23) ONLINE ONLINE	 Discussion
0105	Chantel Rodriguez TuTh 2:00pm - 2:50pm Th 11:00am - 11:50am	Seats (Total: 23) ONLINE ONLINE	 Discussion
0106	Chantel Rodriguez TuTh 2:00pm - 2:50pm Th 12:30pm - 1:20pm	Seats (Total: 23) ONLINE ONLINE	 Discussion

HIST299 **Directed Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Closely guided research in primary sources for students currently enrolled in selected 100- or 200-level surveys in the Department of History.

Prerequisite: permission of department.

Contact department for information to register for this course.

HIST307 **The Holocaust of European Jewry**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: JWST345. Credit only granted for: HIST307 or JWST345.

Roots of Nazi Jewish policy in the 1930's and during World War II: the process of destruction and the implementation of the "final solution of the Jewish problem" in Europe, and the responses made by the Jews to their concentration and annihilation.

0101	Marsha Rozenblit TuTh 9:30am - 10:45am	Seats (Total: 40) KEY 0126

HIST319F **Special Topics in History; Modern African History through Film, Literature, and Music**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Approaches film, literature, and music as interpretive lenses through which to understand 19th- and 20th-century African history, with special emphasis on the ways that African artists have used creative genres to reclaim Africa's past while also imagining new futures.

0101	Erin Mosely	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	TLF 1101

HIST319I **Special Topics in History; The Lion and the Man: Frederick Douglass's Life and Times**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

0101	Christopher Bonner	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	VMH 1207

HIST319N **Special Topics in History; The Black Power Movement**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

0101	Quincy Mills	Seats (Total: 30)
	TuTh 9:30am - 10:45am	KEY 1117

HIST319R **Special Topics in History; Genghis Khan and the Mongols: Destroyers of Worlds and Patrons of Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Examines the Mongol conquests and their impact on world history.

0101	Colleen Ho	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	KEY 0116

HIST320 **Early Christianity: Jesus to Constantine**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: JWST331. Credit only granted for: HIST320 or JWST331.

Social and religious history of early Christianity from its origin in the first century to the reign of Constantine.

Cross-listed with JWST331. Credit granted for HIST320 or JWST331.

0101	Elizabeth Conner TuTh 11:00am - 12:15pm	Seats (Total: 40) AJC 2132

HIST321 **Biblical History and Culture**

Credits: 3

Grading Method: Regular, Pass-Fail

Cross-listed with: JWST324. Credit only granted for: HIST321, or JWST324.

Study of the political, social, and religious development of the Jewish nation from its inception to its return from exile in Babylonia around 536 C.E. Focus on biblical texts, archeological finds, and source materials from neighboring cultures to reconstruct political history and the development of religious concepts.

0101	Matthew Suriano TuTh 2:00pm - 3:15pm	Seats (Total: 25) SQH 2120

HIST327 **The Roman Empire**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Roman history from Augustus to Heraclius, 44BC-641AD: The Imperial court and government; the diversity of culture in provinces and cities and the progress of Romanization; Roman religion and its transformation in late antiquity; the Roman army and defense of the frontiers.

0101	Jeremy Simmons MWF 11:00am - 11:50am	Seats (Total: 40) KEY 0103

HIST328M **Selected Topics in History; Red, White, and Black: Peoples and Communities in Early America**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

0101	Christopher Bonner TuTh 2:00pm - 3:15pm	Seats (Total: 30) KEY 1117

HIST329L **Special Topics in History; Riches and Ruin: A Global History of Capitalism**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

0101	Mircea Raianu Class time/details on ELMs M 2:00pm - 3:15pm	Seats (Total: 20) ONLINE KEY 0116	Discussion
0102	Mircea Raianu Class time/details on ELMs W 2:00pm - 3:15pm	Seats (Total: 20) ONLINE KEY 0116	Discussion

HIST329O **Special Topics in History; Ideologies, Parties, and Social Movements in the Modern Middle East**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Focuses on the emergence and evolution of political and social movements in Middle Eastern countries since the second half of the 19th century. Orientations spanned from left wing radicalism, communism, to political Islam and right-wing nationalism.

0101	Peter Wien TuTh 9:30am - 10:45am	Seats (Total: 30) TLF 1101

HIST339C **Special Topics in History; War, Genocide, and Resilience in Africa's Great Lakes Region**

Credits: 3 Grading Method: Regular, Pass-Fail

Thematic exploration of a topic in history.

Examines postcolonial violence in Rwanda, Burundi, Uganda, and the Democratic Republic of Congo in historical and comparative perspective, with a focus on the social, political, economic, and environmental consequences of these conflicts, as well as the strategies of resilience and resourcefulness that Great Lakes communities have cultivated in the face of protracted crisis and insecurity.

0101	Erin Mosely TuTh 3:30pm - 4:45pm	Seats (Total: 30) TLF 1103

HIST339P **Special Topics in History; Science in Europe, 1700-1950**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Thematic exploration of a topic in history.

Covers major developments in scientific theories and changes to scientific institutions in Europe from the Enlightenment to the Second World War. Topics include the Chemical Revolution, the rise of the German university system, Darwin's theory of natural selection and the reactions to it, the development of Freudian psychiatry, and science during the Firstand Second World Wars.

0101	Melinda Baldwin	Seats (Total: 30)
	MWF 11:00am - 11:50am	TLF 1103

HIST339Q **Special Topics in History; The Early Silk Road and the World of the Indian Ocean**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Thematic exploration of a topic in history.

An investigation of an interconnected Afro-Eurasian world in antiquity. This course explores trade routes and cultural exchange conducted by land (the so-called Silk Road) and sea (the western Indian Ocean) from the Bronze Age through the early centuries CE.

0101	Jeremy Simmons	Seats (Total: 15)
	MW 2:00pm - 3:15pm	TLF 2100

HIST354 **Ante-Bellum America 1815-1861**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HIST200, HIST210, HIST213, HIST222, HIST254, or HIST275; or must have completed HIST156; or permission of instructor.

Traces how the strong nationalism after the War of 1812 transformed int the sectionalism that led to Civil War. The course concentrates on the controversies over slavery and other issues contributing to North-South antagonism, including Jacksonian democracy, capitalism, racism, immigration, manifest destiny and religious, social, and intellectual movements, each of which produced its own social tendencies and tensions.

0101	Robert Chiles	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	KEY 0116

HIST356 **Emergence of Modern America, 1900-1945**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HIST201, HIST211, HIST213, HIST222, HIST255, or HIST275; or must have completed HIST157; or permission of instructor.

The emergence of modern institutions and identities, 1900-1945. These institutions may include corporate enterprises and the welfare state; identities include homosexuality, the New Woman, and the New Negro.

0101	Robert Chiles	Seats (Total: 40)
	TuTh 9:30am - 10:45am	KEY 0116

HIST357 **Recent America: 1945-Present**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HIST201, HIST211, HIST213, HIST222, HIST255, or HIST275; or must have completed HIST157; or permission of instructor.

American history from the inauguration of Harry S. Truman to the present with emphasis upon politics and foreign relations, but with consideration of special topics such as radicalism, conservatism, and labor.

0101	Howard Smead	Seats (Total: 40)
	MW 2:00pm - 3:15pm	KEY 0103

HIST360 **Women and the Civil Rights Movement**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Twentieth-century U.S. civil rights movement from the vantage point of women, considering both women's involvement in the legal campaigns and political protests and the impact of civil rights struggles on women's condition, status, and identity.

Cross-listed with AASP498I and WGSS498M. Credit only granted for HIST360, AASP498I, WGSS498M, or WMST498M.

0101	Elsa Barkley Brown	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	KEY 0126

HIST386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Restriction: Permission of ARHU-History department; and junior standing or higher.

The History Department's Internship program. Pre-professional experience in historical research, analysis, and writing in a variety of work settings.

Contact department for information to register for this course.

HIST396 **Honors Colloquium II**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: CS | General Education: DSSP

Prerequisite: Permission of ARHU-History department; or HIST395. Restriction: Must be in History program.

Uses a seminar approach to examine a major problem of historical interpretation across two or more diverse cultures in different periods. Topics vary and include: religion and society, the city in history, gender, slavery and emancipation, and modernization.

0101	Sarah Cameron	Seats (Total: 12)
	W 10:00am - 11:50am	TLF 2100
	Contact instructor or department for details.	

HIST398 **Honors Thesis I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Individual research and preparation of History Honors Theses.

Contact department for information to register for this course.

HIST399 **Honors Thesis II**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Individualized research and preparation of History Honors Theses.

Contact department for information to register for this course.

HIST401 **Science and Gender**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVUP

Credit only granted for: HIST401 or HIST429R. Formerly: HIST429R.

Examines the role of women and gender in the history of science. Includes consideration of barriers to women's participation in science; women's role as scientific subjects and researchers; and questions about the scientific construction of gender and the gendered construction of science.

0101	Melinda Baldwin	Seats (Total: 18)
	M 1:00pm - 3:30pm	TLF 2108

HIST408D **Senior Seminar; Empire and Borderlands in Russia**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: CS | General Education: DSSP

A capstone course for history majors, designed to increase historical knowledge and the ability to analyze texts and arguments. Topics will focus on the literature of a particular field and primary-source research.

0101	Mikhail Dolbilov Tu 2:00pm - 3:50pm Contact instructor or department for details.	Seats (Total: 12) TLF 2101

HIST408F **Senior Seminar; Social and Cultural Movements of the 1960s and 1970s**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: CS | General Education: DSSP

A capstone course for history majors, designed to increase historical knowledge and the ability to analyze texts and arguments. Topics will focus on the literature of a particular field and primary-source research.

This research seminar explores the extraordinarily wide-ranging social, political, and cultural movements of the 1960s and 1970s.

0101	Katarina Keane M 3:00pm - 4:50pm Contact instructor or department for details.	Seats (Total: 12) TLF 2103

HIST408Q **Senior Seminar; Heresy and Inquisition in the Middle Ages**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: CS | General Education: DSSP

A capstone course for history majors, designed to increase historical knowledge and the ability to analyze texts and arguments. Topics will focus on the literature of a particular field and primary-source research.

This research seminar will explore the challenges that face historians who study medieval heresy. Using the testimony of people tried as Christian heretics, secret Jews, and witches, students will learn methods for working with potentially unreliable sources, and discuss the ethics of interpreting material produced by persecution and torture.

0101	Janna Bianchini W 1:00pm - 2:50pm Contact instructor or department for details.	Seats (Total: 12) TLF 2108

HIST408W **Senior Seminar; The Rise and Fall of the Slave South**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: CS | General Education: DSSP

A capstone course for history majors, designed to increase historical knowledge and the ability to analyze texts and arguments. Topics will focus on the literature of a particular field and primary-source research.

0101	Leslie Rowland	Seats (Total: 12)	
	Th 2:00pm - 3:50pm Class time/details on ELMs	ONLINE ONLINE	Discussion

HIST415 **Ideas and Politics in Europe Since 1900**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Examination of intersection of ideas and politics in Europe since 1900. Focus will be on advocates of liberalism, social democracy, fascism, Nazism, communism, and conservatism and their impact on politics and policy since 1900.

0101	Jeffrey Herf	Seats (Total: 12)
	Tu 3:30pm - 6:00pm	TLF 2103

HIST416 **History of Slavery and the Slave Trade in Africa**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: HIST416 or HIST419Y. Formerly: HIST419Y.

Examines the history and impact of the slave trade on African states, societies, and economies. Investigates the meaning of slavery in Africa, the local uses of slavery there and Africa's connections to the Trans-Saharan, Red Sea, and Trans-Atlantic slave trades.

0101	Paul Landau	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	TLF 2101

HIST418F **Jews and Judaism: Selected Historical Topics; Jewish Women in Modernity**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Cross-listed with JWST409G. Credit only granted for HIST418F or JWST409G.

0101	Marsha Rozenblit	Seats (Total: 15)
	Tu 2:00pm - 4:30pm	TLF 2100

HIST425 **Imperial Russia**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The rise and fall of the Russian Empire, Peter the Great to the collapse of tsarism in revolution. Emphasis on the evolution of autocracy, social groups, national identities, and cultural change.

0101	Mikhail Dolbilov	Seats (Total: 30)
	TuTh 9:30am - 10:45am	TLF 1103

HIST428B **Selected Topics in History; Seven Revolutions in Postwar Africa**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The history of radical politics, anticolonial movements, and revolutionary violence in Africa from 1945 to the present.

0101	Paul Landau	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	KEY 0100

HIST429G **Special Topics in History; The Islamicate World 2.0: Studying Islamic Cultures through Computational Textual Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with PERS498W and SLLC499I. Credit granted for PERS498W, HIST429G, or SLLC499I. An introduction to the use of computational methods for the study of Islamic cultures and societies.

0101	Jonathan Allen	Seats (Total: 15)
	Th 12:30pm - 3:00pm	JMZ 1103

HIST429I **Special Topics in History; Medical Borders: Public Health and Race in U.S. History**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

0101	Chantel Rodriguez	Seats (Total: 15)
	M 10:00am - 12:30pm	ONLINE

HIST429M **Special Topics in History; Constructing the Past in Early Islam**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Cross-listed with RELS419C. Credit only granted for HIST429M or RELS419C. An exploration of historical writing in the medieval Islamic world. How did early Islamic-era scholars define their relationship to the past, torn between memory and oblivion? How did they build narratives about the formative period of Islam that became so influential and long-lasting, determining in a fundamental way the access that all future generations (including us) would have to alternative pasts?

0101	Antoine Borrut W 3:30pm - 6:00pm	Seats (Total: 10) TLF 2108

HIST429T **Special Topics in History; Wealth and Poverty in the Modern Indian City**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

0101	Mircea Raianu Class time/details on ELMs Tu 12:30pm - 1:45pm	Seats (Total: 18) ONLINE TLF 2103

HIST431 **Becoming Great Britain, 1603-1704**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

An examination of the political, religious, and social forces in English life, 1603-1714, with special emphasis on Puritanism and the English revolutions.

0101	Sabrina Baron TuTh 2:00pm - 3:15pm	Seats (Total: 30) TLF 1101

HIST436 **Napoleon, the French Revolution, and the World**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

An argument for the broad continuity between the revolutionary and Napoleonic wars.

0101	Thomas Kaiser TuTh 9:30am - 10:45am	Seats (Total: 30) KEY 0100

HIST442 **Twentieth-Century Russia**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Russia and the Soviet Union from the fall of the tsars to the post- communist present. Impact of Leninism, Stalinism, and Soviet Communism on state, society, culture, and nationality.

0101	Sarah Cameron	Seats (Total: 40)
	MW 2:00pm - 3:15pm	KEY 0126

HIST455 **Constitutional History of the United States: Since 1865**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

American public law and government, with emphasis on the interaction of government, law, and politics, and the relationship between the constitution and social forces and influences, the way in which constitutional principles, rules, ideas, and institutions affect events and are in turn affected by events. Major crises in American government and politics such as Reconstruction,the rise of corporate power, civil liberties during wartime, the New Deal era, the civil disorders of the 1960s.

0101	Michael Ross	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	TYD 2106

HIST469Q **Study Abroad Special Topics IV; History of Spain I: Up to the 20th Century**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HIST473 **History of the Caribbean**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit , D

Prerequisite: HIST112, HIST113, HIST122, HIST123, HIST240, HIST250, or HIST251.

Offers a concise introduction to the history of the Caribbean regions from the Columbian voyages to the 20th century. Special emphasis is given to the dynamics of local social and cultural formations within the framework of the political and economic history of the Atlantic world.

0101	David Sartorius	Seats (Total: 30)
	MW 2:00pm - 3:15pm	ESJ B0322

HIST483 **History of Japan Since 1800**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Japan's renewed contact with the Western world and emergence as a modern state, industrial society, and world power, 1800-1931; and Japan's road to war, occupation, and recovery, 1931 to the present.

0101	Louisa Rubinfien MW 3:30pm - 4:45pm	Seats (Total: 40) ONLINE

HIST499 **Independent Study**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: permission of department.

Contact department for information to register for this course.

HIST601 **History and Contemporary Theory**

Credits: 3

Grading Method: Regular, Audit

An introduction to contemporary theories in philosophy, literary criticism, cultural studies, anthropology, and other fields; and analysis of their usefulness to historians.

0101	Bernard Cooperman Th 6:00pm - 8:30pm	Seats (Total: 12) TLF 2108

HIST607 **The Teaching of History in Institutions of Higher Learning**

(Perm req)

Credits: 1

Grading Method: Sat-Fail

For majors only.

0101	Alejandro Caneque Contact instructor or department for details.	Seats (Total: 15)
0201	Antoine Borrut Contact instructor or department for details.	Seats (Total: 6)

HIST608B **General Seminar; American History**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

General seminar in student's major field of study (e.g., U.S.; Women and Gender; International, World, and Comparative; Science and Technology; Latin America) exploring the concentration's major issues, topics, and literature.

Prerequisite: permission of department.

0101	Colleen Woods	Seats (Total: 12)
	Tu 6:00pm - 8:30pm	TLF 2108

HIST608G **General Seminar; Colonial Latin America**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

General seminar in student's major field of study (e.g., U.S.; Women and Gender; International, World, and Comparative; Science and Technology; Latin America) exploring the concentration's major issues, topics, and literature.

0101	Alejandro Caneque	Seats (Total: 12)
	W 6:00pm - 8:30pm	TLF 2108

HIST608N **General Seminar; Global Interaction and Exchange**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

General seminar in student's major field of study (e.g., U.S.; Women and Gender; International, World, and Comparative; Science and Technology; Latin America) exploring the concentration's major issues, topics, and literature.

0101	David Sartorius	Seats (Total: 12)
	M 6:00pm - 8:30pm	TLF 2100

HIST610 **Introduction to Museum Scholarship**

Credits: 3 Grading Method: Regular, Audit

Cross-listed with: AMST655, ANTH655, INST653. Credit only granted for: AMST655, ANTH655, HIST610, INST728T or INST653.

Provides students a basic understanding of museums as cultural and intellectual institutions. Topics include the historical development of museums, museums as resources for scholarly study, and the museum exhibition as medium for presentation of scholarship.

0101	Lesley Langa	Seats (Total: 15)	
	Tu 4:00pm - 5:45pm	ONLINE	
	Class time/details on ELMs	ONLINE	Discussion

HIST619A **Special Topics in History; Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Prerequisite: permission of department.

Contact department for information to register for this course.

HIST619B **Special Topics in History; Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Prerequisite: permission of department.

Contact department for information to register for this course.

HIST619G **Special Topics in History; Workers of Global Capitalism**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Julie Greene	Seats (Total: 12)	
	Th 3:30pm - 6:00pm	TLF 2100	

HIST638K **Special Topics in History; Readings in 20th Century US Cultural and Intellectual History**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special Topics in History.

0101	Saverio Giovacchini	Seats (Total: 12)	
	Tu 3:30pm - 6:00pm	TLF 2108	

HIST639K **Special Topics in History; Sexualities in the Atlantic World and Beyond (1600-2000)**

Credits: 3 Grading Method: Regular, Audit

Special Topics in History.

0101	Clare Lyons	Seats (Total: 12)
	W 3:30pm - 6:00pm	TLF 2100

HIST639M **Special Topics in History; Constucting the Past in Early Islam**

Credits: 3 Grading Method: Regular, Audit

Special Topics in History.

An exploration of historical writing in the medieval Islamic world. How did early Islamic-era scholars define their relationship to the past, torn between memory and oblivion? How did they build narratives about the formative period of Islam that became so influential and long-lasting, determining in a fundamental way the access that all future generations (including us) would have to alternative pasts?

0101	Antoine Borrut	Seats (Total: 8)
	W 3:30pm - 6:00pm	TLF 2108

HIST708 **Directed Independent Reading for Comprehensive Examinations I**

Credits: 1-4 Grading Method: Sat-Fail

Directed reading in preparation for Doctoral Comprehensive Examinations. In consultation with their advisors, students will select a number of books and articles from an approved list. Grading for the course will reflect performance on the written and oral sections of the Comprehensive Examinations.

Contact department for information to register for this course.

HIST709 **Directed Independent Reading for Comprehensive Examinations II**

Credits: 1-4 Grading Method: Sat-Fail

Directed reading in preparation for Doctoral Comprehensive Examinations. In consultation with their advisors, students will select a number of books and articles from an approved list. Grading for the course will reflect performance on the written and oral sections of the Comprehensive Examinations.

Contact department for information to register for this course.

HIST729A **Readings in Modern European History; Ideas and Politics in Europe since 1900**

Credits: 3 Grading Method: Regular, Audit

Reading knowledge of some European language recommended but not required.

0101	Jeffrey Herf	Seats (Total: 8)
	Tu 3:30pm - 6:00pm	TLF 2103

HIST799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

HIST810 **Museum Research Seminar**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: AMST655, ANTH655, or HIST610. Cross-listed with: AMST856, ANTH856, INST786. Credit only granted for: AMST856, ANTH856, HIST810, INST728U or INST786.

A research seminar focusing on the practice and presentation of cultural and historical scholarship in museums and historical sites. Students will complete an original research project on the challenges and opportunities of public exhibition and interpretation of cultural and historical research.

Additional Note: Cross-listed with ANTH856, HIST810, INST728U. For the Spring 2101 semester, Credit only granted for: AMST856, ANTH856, HIST810 OR INST728U.

0101	Mary Sies	Seats (Total: 15)	
	W 4:00pm - 5:45pm	ONLINE	
	Class time/details on ELMs	ONLINE	Discussion

HIST811 **Museum Scholarship Practicum**

(Perm req)

Credits: 3-6 Grading Method: Regular

Prerequisite: AMST856, ANTH856, or HIST810. Restriction: Permission of Museum Scholarship Program required. Cross-listed with: AMST857, ANTH857, INST787. Credit only granted for: AMST857, ANTH857, HIST811, INST728I or INST787.

Students devise and carry out a research program using the collections at the Smithsonian Institution or some other cooperating museum, working under joint supervision of a museum professional and a university faculty member.

0101	Paul Shackel	Seats (Total: 2)
	Contact instructor or department for details.	
0301	Perla Guerrero	Seats (Total: 2)
	Contact instructor or department for details.	
0401	Mary Sies	Seats (Total: 4)
	Contact instructor or department for details.	

IM01	Paul Jaeger	Seats (Total: 6)
	Contact instructor or department for details.	

HIST819A **Special Topics in History: Independent Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Individual graduate research in an area not covered by current seminar offerings. The product will be a finished research paper normally based on original materials.

Department permission required.

Contact department for information to register for this course.

HIST819B **Special Topics in History: Independent Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Individual graduate research in an area not covered by current seminar offerings. The product will be a finished research paper normally based on original materials.

Department permission required.

Contact department for information to register for this course.

HIST819G **Special Topics in History: Independent Research; Research Seminar in Early America**

Credits: 3 Grading Method: Regular, Audit

Individual graduate research in an area not covered by current seminar offerings. The product will be a finished research paper normally based on original materials.

A graduate-level course designed to help you research and write a research paper, with strategies for turning it into an article. Focus will be on topics related to the Atlantic World and Early America through the Civil war.

0101	Holly Brewer	Seats (Total: 12)
	W 3:30pm - 6:00pm	TLF 2101

HIST898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

HIST899 **Doctoral Dissertation Research**

(Perm req) Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

HLSA Health Services Administration Spring 2022

HLSA300 **Introduction to Health Policy and Services**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Must have completed or be concurrently enrolled in SPHL100 or PHSC300. Restriction: Must be in Public Health Science program; and must have earned a minimum of 60 credits. Credit only granted for: SPHL498P or HLSA300. Formerly: SPHL498P.

A multidimensional view of public health policy and services. Through interactive discussion of assigned readings, team-based learning, and supplementary lecture, students will learn about the nature of and development of policy, public health policy, and financing and delivery of health care services. This course will place a significant emphasis on a team-based learning approach to understanding the health care system and health care reform.

Restricted to College Park students in the Public Health Science major (code: 12140).

0101	Neil Sehgal Class time/details on ELMs W 11:00am - 11:50am	Seats (Total: 20) ONLINE SPH 0116A	Discussion
0102	Neil Sehgal Class time/details on ELMs W 12:00pm - 12:50pm	Seats (Total: 20) ONLINE SPH 0116A	Discussion
0103	Neil Sehgal Class time/details on ELMs W 2:00pm - 2:50pm	Seats (Total: 20) ONLINE SPH 0116B	Discussion
0104	Neil Sehgal Class time/details on ELMs W 3:00pm - 3:50pm	Seats (Total: 20) ONLINE SPH 0116B	Discussion
0105	Neil Sehgal Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 20) ONLINE SPH 0116A	Discussion
0106	Neil Sehgal Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 20) ONLINE SPH 0116A	Discussion

0107	Neil Sehgal Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 20) ONLINE SPH 0116A	Discussion
0108	Neil Sehgal Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 20) ONLINE SPH 0116A	Discussion
0109	Neil Sehgal Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 20) ONLINE SPH 0116A	Discussion

HLSA465 **Redesigning Mental Health Services**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HLTH366. Recommended: EPIB301.

Students will use Design Thinking to create, reshape, redesign and transform the ways in which mental health and wellness is perceived and addressed on the campus. This course will incorporate students and the UMD community as stakeholders in designing, planning and contributing to developing solutions that leverage existing mental health resources or create new pathways to improve mental health and wellness at UMD. Students will learn and use design thinking skills to enhance public health practice skills in project proposals and grant writing.

0101	Portia Buchongo Tu 1:00pm - 3:30pm	Seats (Total: 20) ESJ 2101

HLSA484 **Redesigning Health Care: Developing a Clinic to Meet Community Needs**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Must have completed a minimum of 60 credits. Additional information: Two sessions will be on-site at the Mona Clinic in Temple Hills, MD, and the remaining sessions will be taught in the University of Maryland's Academy for Innovation and Entrepreneurship.

Provides an opportunity for students to learn a key entrepreneurial skill, Design Thinking, while helping to build, reshape, redesign and transform delivery of health care in the Mona Center, a new community center and clinic in Prince George's County. This new, modern vision for a health and wellness clinic embraces student involvement in designing, planning and contributing to innovative programs, solutions, and processes to improve the clinic's ability to meet community and patient needs by addressing the social determinants of health as well as traditional clinical health status. Students in the class will develop empathy for patients, providers and other stakeholders, define problems, select a specific problem for intervention, understand problems based on stakeholder input, ideate, reframe and suggest options to solve or address the problem, prototype solutions, test ideas, and make recommendations to inform implementation and ongoing measurement and monitoring of impact.

0101	Stephen Thomas	Seats (Total: 25)
	F 9:00am - 11:30am Contact instructor or department for details.	ONLINE

HLSA688 **Independent Study**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Master or doctoral students who desire to pursue special research problems under the direction of a faculty memeber of the department may register for 1-6 hours of credit under this number.

Contact department for information to register for this course.

HLSA689 **Field Work in Aging**

Credits: 1-6 Grading Method: Regular

Individual instruction course.

0101	Lori Simon-Rusinowitz	Seats (Total: 1)
	Contact instructor or department for details.	

HLSA702 **Policy and Politics of Health**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Organizational and financial components of the U.S. health care system, including social and political forces that bind the system. Advanced political analysis of the health care system, including key issues and problems.

Contact department for information to register for this course.

HLSA709 **Graduate Seminar**

Credits: 1 Grading Method: Sat-Fail, Audit

The purpose of the course is for doctoral students to present their work to fellow doctoral students and faculty in an informal and supportive environment. Faculty and students provide feedback and suggestions that are helpful to the presenting students. Several sessions each semester are for external speakers on interesting research topics.

0101	Dahai Yue Th 12:00pm - 1:00pm	Seats (Total: 20) ATL 1106

HLSA710 **Healthcare Management: Foundations and Principles**

Credits: 3 Grading Method: Regular, Audit

Concepts and managerial activities essential to achieve the goals of health care organizations are examined and discussed. Managerial processes include planning, decision-making, etc. required to operate and change health care organizations will be discussed. Special emphasis will be placed on the leader/managers role in developing and maintaining an effective system for providing healthcare.

0101	Melvin Seale Class time/details on ELMs	Seats (Total: 25) ONLINE
PLP1	Melvin Seale Class time/details on ELMs *Must be in Health Administration, Online.*	Seats (Total: 35) ONLINE

HLSA711 **Health Economics and Analysis**

Credits: 3 Grading Method: Regular, Audit

Provides an analysis of health and health care services as economic goods. Using microeconomic theories, we will examine the behavior of health care providers, consumers, markets, and firms.

PLH1	Asmaa Albaroudi Class time/details on ELMs *Must be in Public Health Practice and Policy, Online.*	Seats (Total: 35) ONLINE
PLP1	Asmaa Albaroudi Class time/details on ELMs *Must be in Health Administration, Online.*	Seats (Total: 17) ONLINE

HLSA714 **Economic Evaluation of Medical Care**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: HLSA601 and SPHL602; or students who have taken courses with comparable content may contact the department.

An overview of the theory and applications of cost-benefit analysis, cost-effectiveness analysis, and related forms of economic evaluation/decision analysis in the health care sector.

0101	Mir Ali	Seats (Total: 25)
	Tu 7:00pm - 9:45pm	CHE 2145

HLSA720 **Health Law and Ethics**

Credits: 3

Grading Method: Regular, Audit

The legal system helps determine the relationships prevailing among individuals, institutions and governments by setting out the rights, duties and powers of the various parties. This course will look at some of the more important concepts the law uses within the context of health services and public health.

PLH1	William Tilburg	Seats (Total: 25)
	Class time/details on ELMs	ONLINE
	Must be in Public Health Practice and Policy, Online.	
PLP1	William Tilburg	Seats (Total: 10)
	Class time/details on ELMs	ONLINE
	Must be in Health Administration, Online.	

HLSA721 **Using Demographic Data for Health Policy Analysis**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: SPHL602; or students who have taken courses with comparable content may contact the department; or permission of instructor. Additional information: Priority enrollment will be given to students in the Department of Health Services Administration programs.

The goal of this course is to introduce students to the major demographic data sets that are used in health policy research and to provide hands-on experience using these data to answer policy oriented research questions

0101	Michel Boudreaux	Seats (Total: 25)
	Th 4:00pm - 6:45pm	HBK 0125

HLSA723 **Health Policy Analysis and Advocacy**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: HLSA601.

Examination of the politics of the health policy process, including the effects of American political structure and institutions; economic and social factors; interest groups, classes, and social movements; media and public opinion, and other factors. The emphasis is both on understanding how public policy is made as well as how to influence the process.Students will learn about (1) how health policy is developed, adopted, and implemented, (2) the political, institutional, economic, social, and other factors that influence and shape the process, and (3) the basic approaches and tools of strategic advocacy.

0101	Shuo Huang	Seats (Total: 20)
	M 4:00pm - 6:45pm	ATL 1434

HLSA730 **Healthcare Human Resources**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Provides an introduction to the management of human resources in the healthcare setting using basic human resources management doctrine common to all industries. Content includes principles and methods of personnel including employment, recruitment, selection, retention, training and development, compensation including wage and salary administration performance appraisal, job analysis and labor relations.

PLP1	Melvin Seale	Seats (Total: 35)
	Class time/details on ELMs	ONLINE
	Must be in Health Administration, Online.	

HLSA740 **Healthcare Strategic Planning and Marketing**

Credits: 3 Grading Method: Regular, Audit

An understanding of strategic management and marketing is provided which enables the students to lead the process of strategic planning in a healthcare organization. By conducting a marketing and strategic planning process, health care organizations are better able to cope with dramatic changes in technological, social, political, regulatory, and competitive aspects of the health care market. Strategic management enables organizations to identify issues unique to them, which hinder or promote organizational success. Through course readings, class discussions, analyses of secondary quantitative and qualitative data, and presentation of case studies, students gain a thorough understanding of the strategic management process. Students will apply core competencies through a comprehensive strategic and marketing plan. Plans will be defended through an oral presentation.

0101	Christopher King Tu 7:00pm - 9:45pm	Seats (Total: 25) CHE 2118
PLH1	Negin Fouladi Class time/details on ELMs *Must be in Public Health Practice and Policy, Online.*	Seats (Total: 35) ONLINE
PLP1	Negin Fouladi Class time/details on ELMs *Must be in Health Administration, Online.*	Seats (Total: 35) ONLINE

HLSA766 **Foundational Readings in Health Services Research**

Credits: 3 Grading Method: Sat-Fail

Prerequisite: Completion of the six HLSA Health Services Research core courses. Restriction: Must be in Health Services Ph.D. (Doctoral) program.

An overview of the foundational papers that inform health services research and its related disciplines; including literature on key conceptual models, classic empirical studies, and research illustrating cutting edge methods or findings. The major theoretical frameworks and empirical challenges of the field will be examined through critical reading and discussion among students. The course is organized around preparation for the qualifying exam in the Health Services Ph.D. program.

0101	Jie Chen Tu 4:00pm - 6:45pm	Seats (Total: 12) CHE 2140

HLSA772 **Healthcare Leadership and Communications**

Credits: 3 Grading Method: Regular, Audit

Health care administrators rely on transformational leadership skills and insights to help their organizations rise to the social financial, public health, and technological challenges of the future. Students will assess and develop their leadership strengths, apply key leadership communication principles, and critically analyze relevent leadership models, exploring their utility in addressing key leadership issues in health care organizations. An underlying theme will be the identification of core values involved in health care delivery, integration of those values in personal and organizational missions, and effective communication to stakeholders.

0101	Elsie Essien M 4:00pm - 6:45pm	Seats (Total: 23) PLS 1158

HLSA775 **Health Services and Policy Research Methods**

Credits: 3 Grading Method: Regular, Sat-Fail

Restriction: Must be in a major in SPHL-School of Public Health; or permission of instructor.

Survey of health services and policy research methods, including conceptualization, measurement, survey sampling, literature review, different research designs, causal inference, data analysis, and interpretation of basic statistics. This is an introductory course in research methods designed for master's students in the School of Public Health.

0101	Dahai Yue	Seats (Total: 25)
	Tu 4:00pm - 6:45pm	ATL 1109

HLSA777 **Program Evaluation Field Experience**

Credits: 3 Grading Method: Regular

Additional information: Students will travel to the program site approximately three times to guide the evaluation design and collect data.

Program evaluation is a critical component in designing and operating effective programs. Organizations seek more accountability for the funds they provide to public or private projects. This course serves as an introduction to assessment methodology and evaluation tools commonly used in program evaluation. Students will gain practical experience through a series of exercises involving the design of a conceptual framework, development of indicators, and development of an evaluation plan to measure impact, and cost benefit/cost effectiveness analysis. The course will cover mixed methods research including qualitative and quantitative analysis, methodologies, and/or paradigms in a research study. Students will evaluate a community health program funded by the Maryland Community Health Care Commission (CHRC), and the Commission director will guide selection of the program.

0101	Lori Simon-Rusinowitz	Seats (Total: 25)
	Tu 4:00pm - 6:45pm	CHE 2118

HLSA778 **Internship in Public Health**

Credits: 1-4 Grading Method: Regular, Audit

Internship providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the internship will depend upon the student's background and career goals.

Internship and seminar providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the internship will depend upon the student's background and career goals.

Contact department for information to register for this course.

HLSA786 **Capstone Project in Public Health**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of SPHL-Health Services Administration department.

Capstone experience provding opportunity to apply knowledge and skills to a specific public health problem or issue. Completion of project relevant to public health under the direction of an advisor.

Contact department for information to register for this course.

HLSA787 **Health Equity Practice, Policy, and Research**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in a major in SPHL-School of Public Health; or permission of instructor.

The objective of this course is to introduce students to the role of key stakeholders, including health care systems/organizations, governmental agencies/entities, and community-based organizations in advancing health equity to improve population health. Students will develop a set of foundational practices that centers health equity and social justice to develop, understand, evaluate, analyze, and apply health equity strategies in practice settings. This class is designed to build the capacity of students to translate theory into action and support a dynamic process of learning.

0101	Kellee White	Seats (Total: 25)
	Th 4:00pm - 6:45pm	ATL 1434

HLSA799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

HLSA898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

HLSA899 **Doctoral Dissertation Research**

(Perm req)

Credits: 1-8 Grading Method: Sat-Fail

Contact department for information to register for this course.

HLSC102 **Service-Learning in the Life Sciences**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: HLSC100. Restriction: Must be in the Honors College Integrated Life Sciences program.

The Integrated Life Sciences (ILS) Honors Program includes a rigorous academic curriculum, a research requirement, a living-learning component, and a service-learning experience. Service has been a tradition since 2012 and was initiated by our students, who wanted service incorporated as part of the ILS mission and values. Our students have contributed more than 6,000 hours of their time and talent to campus and local organizations, and this experiential learning has provided an opportunity to apply classroom studies to the real world. In general, these service experiences are directly relevant to their future careers as life scientists, because they contribute to improved access for all people to quality health care, to engaging STEM education, and/or to sustainable environments. The service-learning experience is introduced in the fall semester of the first year of ILS in HLSC100, and completed with a 1-credit course in the spring.

0101	Zabrina Anzyl	Seats (Total: 85)
	Class time/details on ELMs	ONLINE

HLSC227 **Topics in Scientific Integrity and Medical Ethics**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major in UGST-HCOL-Integrated Life Sciences Program.

This course looks at ethical issues related to scientific research and integrity as well as issue surrounding medical ethics such as use of limited resources, euthanasia, and physician-assisted suicide. This is a topics class, so we won't be going into detail of philosophical arguments, but we may bring them up as relevant. Moreover, especially as applied to medical ethics, there may be no "right" answer. Instead, we would like you to be able to think critically about the issue, and make a moral argument (as opposed to a logistical argument).

0101	Sabrina Kramer, Najib El-Sayed	Seats (Total: 30)
	Tu 4:00pm - 4:50pm	ESJ 1309

HLSC322 **Principles of Genetics and Genomics**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM131, CHEM132, BSCI160, BSCI161, BSCI170, and BSCI171; or must have completed BSCI170, BSCI171 and two semesters of Chemistry. Restriction: Must be in a major in UGST-HCOL-Integrated Life Sciences Program. Credit only granted for: HLSC322 or BSCI222.

Principles and mechanisms of heredity and gene expression, with a focus on the application of genomics to contemporary medicine, biotechnology, and societal issues.

0101	Leslie Pick TuTh 11:00am - 12:15pm Tu 2:00pm - 3:50pm	Seats (Total: 24) CCC 1205 LPA 0100	Discussion
0102	Leslie Pick TuTh 11:00am - 12:15pm W 2:00pm - 3:50pm	Seats (Total: 24) CCC 1205 LPA 0100	Discussion
0103	Leslie Pick TuTh 11:00am - 12:15pm Th 2:00pm - 3:50pm	Seats (Total: 24) CCC 1205 LPA 0100	Discussion
0104	Leslie Pick TuTh 11:00am - 12:15pm F 12:00pm - 1:50pm	Seats (Total: 24) CCC 1205 LPA 0100	Discussion

HLSC329 **Teaching Practicum in the Life Sciences**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

A guide and support for the undergraduate teaching assistants (UTAs) in the Integrated Life Sciences (ILS) honors living-learning program. UTAs will develop a greater understanding of teaching and learning in the life sciences, with a focus on the academic values of ILS, by exploring education research and theory, discussing learning strategies and techniques, and reflecting on their practice. Students take this course while serving as a undergraduate teaching assistant in the Integrated Life Sciences courses.

0101	Sabrina Kramer Class time/details on ELMs	Seats (Total: 12) ONLINE	

HLTH Health Spring 2022

HLTH124 **Introduction to Behavioral and Community Health**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major within the SPHL-Behavioral & Community Health department.

Required of first semester Community Health majors to expose them to introductory-level concepts within the field of behavioral and community health as well as the Community Health degree program. Includes discussion on the delivery of behavioral and community health at the local, state, national, and global levels; career opportunities in the diverse sectors of the community health field; undergraduate programmatic information; and strategies for student success.

0101	M Reynolds	Seats (Total: 80)
	M 1:00pm - 1:50pm	SYM 0200

HLTH140 **Personal and Community Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Meaning and significance of physical, mental and social health as related to the individual and to society; important phases of national health problems; constructive methods of promoting health of the individual and the community.

0101	Jennifer Robinson	Seats (Total: 150)
	TuTh 9:30am - 10:45am	SPH 1312

HLTH140H **Personal and Community Health**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Meaning and significance of physical, mental and social health as related to the individual and to society; important phases of national health problems; constructive methods of promoting health of the individual and the community.

0101	Jennifer Robinson	Seats (Total: 150)
	TuTh 9:30am - 10:45am	SPH 1312

HLTH200 **Introduction to Research in Community Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major within the SPHL-Behavioral and Community Health department.

An overview of specific components and steps involved in the community health research process. Content includes, foundations of research, sampling, measurement design, and analysis in a community context.

There is no restriction for this term.

0101	Dina Borzekowski MWF 2:00pm - 2:50pm	Seats (Total: 50) HBK 0115

HLTH230 **Introduction to Health Behavior**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

Psychological, social psychological, and sociological approaches to the following health areas: development of health attitudes and behavior, patient-provider interaction and the organization of health care.

Restricted to majors or non-majors with less than or equal to 45 credits.

0101	Zahra Saboori TuTh 11:00am - 12:15pm	Seats (Total: 75) SPH 1312

HLTH234 **Global Health Messages: Understanding Exposure & Impact**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DVCC, SCIS

Restriction: Must not be in the Community Health program.

Using a global perspective, this course teaches students to be critical consumers of current and historical health communication interventions. It also provides students with the skills to develop media interventions that target specific and general populations. Students will discover the array of diverse media messages that influence the health and well-being of individuals and communities.

0101	Dina Borzekowski Tu 3:30pm - 6:15pm	Seats (Total: 42) SPH 1312

HLTH234H **Global Health Messages: Understanding Exposure & Impact**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DVCC, SCIS

Restriction: Must not be in the Community Health program.

Using a global perspective, this course teaches students to be critical consumers of current and historical health communication interventions. It also provides students with the skills to develop media interventions that target specific and general populations. Students will discover the array of diverse media messages that influence the health and well-being of individuals and communities.

0101	Dina Borzekowski	Seats (Total: 8)
	Tu 3:30pm - 6:15pm	SPH 1312

HLTH264 **Tweets & Likes: Digital Health & Social Media**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Restriction: Must not be in the Community Health program.

Examines the current and potential use of digital health and social media to influence public health. Provides an overview of knowledge, skills and terminology necessary to optimize the effectiveness of these technologies to contribute to the enhancement of individual and community health.

0101	Amara Channell Doig	Seats (Total: 35)
	TuTh 2:00pm - 3:15pm	CHE 2118

HLTH264H **Tweets & Likes: Digital Health & Social Media**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Restriction: Must not be in the Community Health program.

Examines the current and potential use of digital health and social media to influence public health. Provides an overview of knowledge, skills and terminology necessary to optimize the effectiveness of these technologies to contribute to the enhancement of individual and community health.

0101	Amara Channell Doig	Seats (Total: 5)
	TuTh 2:00pm - 3:15pm	CHE 2118

HLTH285 **Controlling Stress and Tension**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: IE | General Education: DSHS

Health problems related to stress and tension. Analysis of causative psychosocial stressors and intervening physiological mechanisms. Emphasis on prevention and control of stress through techniques such as biofeedback, meditation and neuromuscular relaxation.

0101	Zahra Saboori	Seats (Total: 56)
	TuTh 8:00am - 9:15am	SPH 1312

HLTH285H **Controlling Stress and Tension**

(Perm req) Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: IE General Education: DSHS

Health problems related to stress and tension. Analysis of causative psychosocial stressors and intervening physiological mechanisms. Emphasis on prevention and control of stress through techniques such as biofeedback, meditation and neuromuscular relaxation.

0101	Zahra Saboori	Seats (Total: 56)
	TuTh 8:00am - 9:15am	SPH 1312

HLTH289 **Topical Investigations**

(Perm req) Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Independent study by an individual student or an experimental course in special areas of knowledge not covered by regularly scheduled courses.

Contact department for information to register for this course.

HLTH302 **Methods of Community Health Assessment**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in HLTH200 and EPIB301. Restriction: Must be in a major within the SPHL-Community Health Department.

Examination of research and evaluation tools that can be applied to community health promotion. Includes the application of qualitative research methods, community needs and strengths assessments, asset mapping, and monitoring and evaluating process, outcome and impact evaluation.

0101	Zahra Saboori	Seats (Total: 45)
	TuTh 9:30am - 10:45am	CCC 1111

HLTH302H **Methods of Community Health Assessment**

(Perm req) Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in HLTH200 and EPIB301. Restriction: Must be in a major within the SPHL-Community Health Department.

Examination of research and evaluation tools that can be applied to community health promotion. Includes the application of qualitative research methods, community needs and strengths assessments, asset mapping, and monitoring and evaluating process, outcome and impact evaluation.

0101	Zahra Saboori TuTh 9:30am - 10:45am	Seats (Total: 5) CCC 1111

HLTH306 **Macro Level Influences on Community Health**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in HLTH124. Restriction: Must be in a major within the SPHL-Behavioral & Community Health department.

An examination of the effects and influences of policy decisions at the local, state and national levels on community health delivery. Historical and contemporary policy issues will be included with a focus on how the policies have impacted community organizations and the overall health of communities.

0101	Donna Howard Tu 12:30pm - 1:45pm Th 12:30pm - 1:45pm	Seats (Total: 40) ONLINE BPS 1236
	Restricted to majors who entered the program Fall 2018 and later.	

HLTH306H **Macro Level Influences on Community Health**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in HLTH124. Restriction: Must be in a major within the SPHL-Behavioral & Community Health department.

An examination of the effects and influences of policy decisions at the local, state and national levels on community health delivery. Historical and contemporary policy issues will be included with a focus on how the policies have impacted community organizations and the overall health of communities.

0101	Donna Howard Tu 12:30pm - 1:45pm Th 12:30pm - 1:45pm	Seats (Total: 5) ONLINE BPS 1236

HLTH364 **Social Media & Digital Tools for Community & Public Health**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: Completion of HLTH230 with a C- or higher. Restriction: Must be in a major within the SPHL-Behavioral and Community Health department; Restricted to majors who entered the program in Fall 2018 or later.

Examination of the characteristics and uses of media platforms and digital technologies to expand the capability to identify and reduce community and public health risks at all levels of prevention. Also considered will be the potential threats these new media can play on individual choice, privacy, confidentiality, and social influence -- which themselves can pose health threats to community and public health.

Restricted to Community Health (08370) majors who entered the program in Fall 2018 or later.

0101	Sandra Saperstein	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	SPH 0121

HLTH364H **Social Media & Digital Tools for Community & Public Health**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Completion of HLTH230 with a C- or higher. Restriction: Must be in a major within the SPHL-Behavioral and Community Health department; Restricted to majors who entered the program in Fall 2018 or later.

Examination of the characteristics and uses of media platforms and digital technologies to expand the capability to identify and reduce community and public health risks at all levels of prevention. Also considered will be the potential threats these new media can play on individual choice, privacy, confidentiality, and social influence -- which themselves can pose health threats to community and public health.

0101	Sandra Saperstein	Seats (Total: 5)
	TuTh 2:00pm - 3:15pm	SPH 0121

HLTH366 **Behavioral and Community Issues in Public Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HLTH130, HLTH230, PSYC100, SOCY100, SOCY105, or ANTH260. Restriction: Must be in Public Health Science program; or permission of SPHL-Behavioral & Community Health department. And must have earned a minimum of 45 credits. Additional information: This course will initially be restricted to Public Health Science (PHSC) majors, but could ultimately be opened to other majors, particularly those in HLTH.

The exploration of how social and behavioral science theories and public health concepts and methods can be applied to both the health-illness experience and community interventions.

0101	Evelyn King-Marshall MW 2:00pm - 2:50pm Tu 9:30am - 10:20am	Seats (Total: 27) ESJ 2208 JMP 1109	Discussion
	Restricted to Public Health Science students at College Park.		
0102	Evelyn King-Marshall MW 2:00pm - 2:50pm Tu 12:30pm - 1:20pm	Seats (Total: 27) ESJ 2208 SPH 0121	Discussion
	Restricted to Public Health Science students at College Park.		
0103	Evelyn King-Marshall MW 2:00pm - 2:50pm W 10:00am - 10:50am	Seats (Total: 27) ESJ 2208 SPH 0121	Discussion
	Restricted to Public Health Science students at College Park.		
0104	Evelyn King-Marshall MW 2:00pm - 2:50pm W 11:00am - 11:50am	Seats (Total: 27) ESJ 2208 SPH 0121	Discussion
	Restricted to Public Health Science students at College Park.		
0105	Evelyn King-Marshall MW 2:00pm - 2:50pm W 12:00pm - 12:50pm	Seats (Total: 27) ESJ 2208 SPH 0121	Discussion
	Restricted to Public Health Science students at College Park.		
0106	Evelyn King-Marshall MW 2:00pm - 2:50pm Th 9:30am - 10:20am	Seats (Total: 26) ESJ 2208 PHY 1402	Discussion
	Restricted to Public Health Science students at College Park		
ESG1	Chandria Jones Th 5:00pm - 7:30pm	Seats (Total: 35) BLD3 3206	
	Restricted to Shady Grove students in the Public Health Science major.		

HLTH377 Human Sexuality

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The biological and developmental aspects of human sexuality; the psychological and emotional aspects of sexual behavior; sexual identity; the historical, cultural, social, linguistic, legal and moral forces affecting sexual issues; the importance of communication, disclosure and intimacy in interpersonal relationships; and research trends in the area of human sexuality.

0101	Jenna Messman	Seats (Total: 200)
	Class time/details on ELMs	ONLINE

HLTH377H **Human Sexuality**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The biological and developmental aspects of human sexuality; the psychological and emotional aspects of sexual behavior; sexual identity; the historical, cultural, social, linguistic, legal and moral forces affecting sexual issues; the importance of communication, disclosure and intimacy in interpersonal relationships; and research trends in the area of human sexuality.

0101	Jenna Messman	Seats (Total: 200)
	Class time/details on ELMs	ONLINE

HLTH386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of SPHL-Behavioral & Community Health department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

HLTH389 **Topical Investigations**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Independent study by an individual student or an experimental course in special areas of knowledge not covered by regularly scheduled courses.

Contact department for information to register for this course.

HLTH391 **Making a Difference: Applying Community Health**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: SPHL100, HLTH124, HLTH140, HLTH200, HLTH230, EPIB301, EPIB315, BSCI170, BSCI201, and HLTH302. Students must have completed or be concurrently enrolled in HLTH364. Corequisite: HLTH420 and HLTH490. Restriction: Must be in a major within the SPHL-Behavioral and Community Health department.

The exploration and application of community health concepts including theoretical models, advocacy, cultural competency, asset mapping, and needs assessment. Includes planning, implementing and evaluating a community health program with a designated community partner.

0101	James Butler	Seats (Total: 55)
	MW 12:30pm - 1:45pm	PLS 1130

HLTH391H **Making a Difference: Applying Community Health**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: SPHL100, HLTH124, HLTH140, HLTH200, HLTH230, EPIB301, EPIB315, BSCI170, BSCI201, and HLTH302. Students must have completed or be concurrently enrolled in HLTH364. Corequisite: HLTH420 and HLTH490. Restriction: Must be in a major within the SPHL-Behavioral and Community Health department.

The exploration and application of community health concepts including theoretical models, advocacy, cultural competency, asset mapping, and needs assessment. Includes planning, implementing and evaluating a community health program with a designated community partner.

0101	James Butler	Seats (Total: 5)
	MW 12:30pm - 1:45pm	PLS 1130

HLTH399 **Community Health Field Work**

(Perm req)

Credits: 1-6 Grading Method: Regular

Students will gain practical experience under conditions conducive to educational and professional development. The internship is a supervised period of community/public health activities, carried out in a relevant professional organization, that emphasizes the application of theory and previous coursework.

Contact department for information to register for this course.

HLTH420 **Effective Strategies for Public Health Practice**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSOC

Prerequisite: Minimum grade of C- in EPIB301, EPIB315, SPHL100, HLTH124, HLTH140, HLTH200, HLTH230, HLTH302, BSCI170, BSCI171, and BSCI201. Students must have successfully completed or concurrently complete HLTH364. Corequisite: HLTH490 and HLTH391. Restriction: Must be in a major within the SPHL-Behavioral and Community Health department.

The purpose of this course is to present the interrelationships of curriculum planning, methodology and the selection and use of successful public health presentation strategies. Special problems associated with public health presentations are discussed, and students become familiar with a variety of resources as well as with planning for and implementing demonstration presentations.

0101	M Reynolds TuTh 9:30am - 10:45am	Seats (Total: 20) ATL 1434
0201	M Reynolds TuTh 11:00am - 12:15pm	Seats (Total: 20) ATL 1434
0301	M Reynolds TuTh 12:30pm - 1:45pm	Seats (Total: 20) ATL 1434

HLTH424 **Lesbian, Gay, Bisexual & Transgender Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: Students should have some familiarity with basic psychology, sociology and/or epidemiology. Restriction: This course is restricted to students who have completed a minimum of 60 credits. Jointly offered with HLTH624. Credit only granted for: HLTH424 or HLTH6 24.

The preparation of students to be knowledgeable advocates for the health of lesbian, gay, bisexual, and transgender (LGBT) populations. Course focus is defined by the Healthy People 2020 federal health objectives for LGBT populations: data collection for research, culturally competent healthcare, bullying in schools, suicide, homelessness, and sexually transmitted diseases including HIV.

0101	Bradley Boekeloo Th 4:00pm - 6:45pm *Restricted to HLTH students only.*	Seats (Total: 20) Location: TBA
0201	Bradley Boekeloo Th 4:00pm - 6:45pm *Restricted to PHSC students only.*	Seats (Total: 20) CCC 1200

HLTH424H **Lesbian, Gay, Bisexual & Transgender Health**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Recommended: Students should have some familiarity with basic psychology, sociology and/or epidemiology. Restriction: This course is restricted to students who have completed a minimum of 60 credits. Jointly offered with HLTH624. Credit only granted for: HLTH424 or HLTH6 24.

The preparation of students to be knowledgeable advocates for the health of lesbian, gay, bisexual, and transgender (LGBT) populations. Course focus is defined by the Healthy People 2020 federal health objectives for LGBT populations: data collection for research, culturally competent healthcare, bullying in schools, suicide, homelessness, and sexually transmitted diseases including HIV.

0101	Bradley Boekeloo Th 4:00pm - 6:45pm	Seats (Total: 20) Location: TBA
0201	Bradley Boekeloo Th 4:00pm - 6:45pm	Seats (Total: 20) CCC 1200

HLTH431 **Health Literacy in Action**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Recommended: HLTH 371; or equivalent. Repeatable to 0 credit. Credit only granted for: HLTH431 or HLTH498L. Formerly: HLTH498L.

This course introduces the concept of health literacy and develops the knowledge and skills to understand the field and engage productively about health literacy with healthcare providers, systems, and policy makers. The class explores diverse perspectives about health information and communication, and different pathways and strategies to help create the conditions for more informed and engaged individuals and communities.

0101	Catherine Maybury TuTh 2:00pm - 3:15pm *Restriction: Students in the Community Health (HLTH) majors.*	Seats (Total: 16) ATL 1434
0201	Catherine Maybury TuTh 2:00pm - 3:15pm *Restriction: Students in the Public Health Science (PHSC) majors.*	Seats (Total: 14) ATL 1434

HLTH431H **Health Literacy in Action**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Recommended: HLTH 371; or equivalent. Repeatable to 0 credit. Credit only granted for: HLTH431 or HLTH498L. Formerly: HLTH498L.

This course introduces the concept of health literacy and develops the knowledge and skills to understand the field and engage productively about health literacy with healthcare providers, systems, and policy makers. The class explores diverse perspectives about health information and communication, and different pathways and strategies to help create the conditions for more informed and engaged individuals and communities.

0101	Catherine Maybury	Seats (Total: 4)
	TuTh 2:00pm - 3:15pm	ATL 1434

HLTH434 **Introduction to Public Health Informatics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in one of the following programs (Community Health; Public Health Science) ; and must have earned a minimum of 60 credits. Credit only granted for: HLTH434 or HLTH498E. Formerly: HLTH498E.

Provides an overview of the field of public health informatics and the influence of technology on the public's health and well-being. Emphasizes the application of various technologies and computer/internet applications to support public health research and practice, including strategies to address new and emerging threats.

ESG1	Sandra Saperstein	Seats (Total: 35)
	Tu 9:00am - 11:30am	BLD3 2133
	Restricted to Shady Grove students in the Public Health Science major.	

HLTH471 **Women's Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D

Restriction: Must be in a program in the Harriet Tubman Department of Women, Gender, and Sexuality Studies; or must be in a major within SPHL-Behavioral & Community Health department. Cross-listed with: WGSS471. Credit only granted for: HLTH471, WMST471, or WGSS471.. Formerly: WMST471.

The women's health movement from the perspective of consumerism and feminism. The physician-patient relationship in the gynecological and other medical settings. The gynecological exam, gynecological problems, contraception, abortion, pregnancy, breast and cervical cancer and surgical procedures. Psychological aspects of gynecological concerns.

Cross-listed with WMST471. Credit granted for HLTH471 or WMST471.

0101	Tracy Zeeger	Seats (Total: 30)
	Class time/details on ELMs	ONLINE
	Restriction: Must be a major in Behavioral and Community Health department; or must be in a major within ARHU-Women's Studies department.	
0201	Tracy Zeeger	Seats (Total: 45)
	Class time/details on ELMs	ONLINE
	Restriction: Must be a Public Health Science major.	

HLTH471H **Women's Health**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D

Restriction: Must be in a program in the Harriet Tubman Department of Women, Gender, and Sexuality Studies; or must be in a major within SPHL-Behavioral & Community Health department. Cross-listed with: WGSS471. Credit only granted for: HLTH471, WMST471, or WGSS471.. Formerly: WMST471.

The women's health movement from the perspective of consumerism and feminism. The physician-patient relationship in the gynecological and other medical settings. The gynecological exam, gynecological problems, contraception, abortion, pregnancy, breast and cervical cancer and surgical procedures. Psychological aspects of gynecological concerns.

0101	Tracy Zeeger	Seats (Total: 5)
	Class time/details on ELMs	ONLINE

HLTH489 **Field Laboratory Projects and Workshop**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

A course designed to meet the needs of persons in the field with respect to workshop and research projects in special areas of knowledge not covered by regularly structured courses.

Contact department for information to register for this course.

HLTH490 **Professional Preparation in Community Health**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in EPIB301, EPIB315, SPHL100, HLTH124, HLTH140, HLTH200, HLTH230, HLTH302, BSCI170, BSCI171, and BSCI201. Students must have successfully completed or concurrently complete HLTH364. Corequisite: Students must also enroll in HLTH420 and HLTH391. Restriction: Must be in a major within the SPHL-Behavioral and Community Health department.

The development of skills necessary for joining the public health work force post-graduation, as well as assistance in obtaining an appropriate internship that will serve as a final semester, capstone experience. Students will be exposed to various relevant professional experiences, and will be afforded the opportunity to strengthen their own individual skills by selecting from a menu of skills-based learning modules that best suit their perceived needs.

0101	Tracy Zeeger TuTh 11:00am - 12:15pm	Seats (Total: 30) SPH 0121
0201	Tracy Zeeger TuTh 9:30am - 10:45am	Seats (Total: 28) SPH 0121

HLTH491 **Community Health Internship**

(Perm req)

Credits: 12 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in HLTH420 and HLTH490. Restriction: Must have completed all program requirements and be in the last semester of the Community Health degree program.

Integrating theory with practice in a community health setting.

0101	Tracy Kennedy Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 75)

HLTH492 **BS/MPH Community Health Internship**

(Perm req)

Credits: 9 Grading Method: Regular

Prerequisite: Minimum grade of C- in HLTH490. Restriction: Must be a Community Health major who has been admitted to the combined BS/MPH degree program.

Integrating theory with practice in a community health setting.

0101	Tracy Kennedy Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 5)

HLTH609 **Public Health Journal Club**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Includes discussion of recent literature from leading peer-reviewed journals on a specific psychosocial construct and health outcome, with students presenting two articles during the semester. The purpose of this course is to read and consider health constructs and outcomes from a multidisciplinary perspective.

0101	Devlon Jackson, James Butler, Craig Fryer Contact instructor or department for details.	Seats (Total: 10)

HLTH624 **Advanced Lesbian, Gay, Bisexual & Transgender Health**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Recommended: Students should have some familiarity with basic psychology, sociology and/or epidemiology. Credit only granted for: HLTH424 or HLTH624.

The preparation of students to be knowledgeable advocates for the health of lesbian, gay, bisexual, and transgender (LGBT) populations. Course focus is defined by the Healthy People 2020 federal health objectives for LGBT populations: data collection for research, culturally competent healthcare, bullying in schools, suicide, homelessness, and sexually transmitted diseases including HIV.

0101	Bradley Boekeloo Th 4:00pm - 6:45pm	Seats (Total: 5) JMZ 1123

HLTH625 **Community Assessment through Qualitative Methods**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Course will be restricted to Behavioral and Community Health graduate students.

A discussion of major paradigms in qualitative inquiry, an overview of the process of qualitative research, and an introduction to several qualitative research methods, including grounded theory, ethnography, phenomenology, and content analysis. Students will collect, transcribe, analyze, and present qualitative data using introductory interview and analytic techniques.

0101	Kirsten Stoebenau Tu 4:00pm - 6:45pm	Seats (Total: 15) ATL 2316
0201	Jennifer Robinson Tu 4:00pm - 6:45pm	Seats (Total: 15) AJC 2134

PLB1	Zahra Saboori	Seats (Total: 15)
	Class time/details on ELMs	ONLINE
	Must be in Behavior and Community Health, Online. All other graduate students must request permission. Contact oes@umd.edu.	

HLTH653 **Quantitative Research Methods II in Public Health**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: HLTH652. Restriction: Must be in a major within SPHL-Behavioral & Community Health department. Credit only granted for: HLTH653 or HLTH688T. Formerly: HLTH688T.

Intermediate and advanced statistics and procedures in health-related research for doctoral students with the focus on applications of these statistical methodological methods to public health research.

0101	Min Wang	Seats (Total: 10)
	M 4:00pm - 6:45pm	SPH 0227

HLTH665 **Health Behavior I**

Credits: 3 Grading Method: Regular, Audit

Provides students with an understanding of the application of the social and behavioral sciences to health; addressing behavioral, social, and cultural factors that influence individual and population health and health disparities over the life course. Public health issues related to individuals and populations will be examined in terms of social and behavioral theories, empirical research findings, and methodologies.

Weekly course materials (slides, readings, videos) will be posted in ELMS and are to be reviewed asynchronously; class will meet weekly on Thursdays from 4:00-5:45pm in class/in-person for presentations, discussions and other activities.

0101	Donna Howard	Seats (Total: 25)
	Th 4:00pm - 5:45pm Class time/details on ELMs	ATL 1114 ONLINE
PLB1	Katherine Sharp	Seats (Total: 25)
	Class time/details on ELMs	ONLINE
	Must be in Behavior and Community Health, Online. All other graduate students must request permission. Contact oes@umd.edu.	

HLTH666 **Health Behavior II**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: HLTH665.

Develops students' expertise in applying health behavior theory, with an emphasis on cultural appropriateness and through a social justice lens. This course will build on material learned in HLTH 665, and will involve a particular emphasis on application of health behavior theory. The course will be taught using a "hands-on" approach, giving students a skill foundation in applying health behavior theories throughout the life course of an intervention from the research question and hypothesis, to intervention development, and evaluation.

0101	Cheryl Knott W 4:00pm - 6:45pm	Seats (Total: 12) PLS 1158

HLTH671 **Public Health Communication**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Restriction: Non-SPH students must obtain permission from the instructor prior to registering. Credit only granted for: HLTH670 or HLTH671 and HLTH672. Formerly: HLTH670.

An exploration of the the broad and diverse field of health communication including medical encounters, everyday communication about health, advertising, news, public health campaigns, community outreach, public policy, and international programs. Theories and applied efforts that have been studied and documented will be examined.

0101	Devlon Jackson W 4:00pm - 6:45pm	Seats (Total: 25) ATL 1434
PLB1	Devlon Jackson Class time/details on ELMs *Must be in Behavior and Community Health, Online. All other graduate students must request permission. Contact oes@umd.edu.*	Seats (Total: 10) ONLINE

HLTH688 **Special Problems in Health Education**

(Perm req)

Credits: 1-6

Grading Method: Regular, Audit

Contact department for information to register for this course.

HLTH711 **Advanced Research Methods in Health**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: HLTH710. Restriction: Must be in MPH: Community Health Education (Master's) program; or must be in Ph.D.: Public and Community Health (Doctoral) program.

Quantitative techniques, advanced research methods and design issues.

0101	Elaine Doherty Th 4:00pm - 6:45pm	Seats (Total: 10) JMZ 2125

HLTH776 **Community Health Program Evaluation**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: HLTH710 and HLTH774. Restriction: Must be in the Behavioral and Community Health (BCHL) doctoral program; and permission of Behavioral and Community Health department; or permission of instructor. Credit only granted for: HLTH775 or HLTH774 and HLTH776. Formerly: HLTH775.

An application of basic research methods, and the evaluation of community health programs. Students will evaluate the effectiveness of a community health intervention.

0101	Amelia Arria W 4:00pm - 6:45pm	Seats (Total: 20) PLS 1164

HLTH778 **Internship in Public Health**

Credits: 1-4 Grading Method: Regular

Internship and seminar providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the internship will depend upon the student's background and career goals.

0101	Evelyn King-Marshall M 7:00pm - 9:45pm	Seats (Total: 10) PLS 1164
PLB1	Evelyn King-Marshall Class time/details on ELMs *Must be in Behavior and Community Health, Online. All other graduate students must request permission. Contact oes@umd.edu.*	Seats (Total: 10) ONLINE

HLTH786 **Capstone Project in Public Health**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Must have completed all required coursework; and permission of SPHL-Behavioral & Community Health department. Restriction: Must be in a major within SPHL-Behavioral & Community Health department.

Capstone experience providing opportunity to apply knowledge and skills to a specific public health problem or issue. Completion of project relevant to public health under the direction of an advisor.

Contact department for information to register for this course.

HLTH799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

HLTH898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

HLTH899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

HNUH University Honors Spring 2022

HNUH100 **Gateway Seminar**

(Perm req)

Credits: 1 Grading Method: Regular

First-semester orientation and exploration seminar required of all UH students.

0101	Natalie Kress, Christine Jones	Seats (Total: 10)
	Class time/details on ELMs	ONLINE

HNUH218X **Uprising, Riot, Revolt: Violence in Story and Theory**

Credits: 3 Grading Method: Regular General Education: DSHU, DVUP

How does violence connect to revolution? Is violence the result of lone wolf actors, oppressive social structures, or just blind fate? Is it a side-effect of revolution or its driving force? Is violence a way to fight injustice, or is it a problem of evil? Why is one person's uprising another person's riot? In this seminar, we will explore literature, politics, and religion to debate the meaning and causes of violence. By examining the writings of a prison psychiatrist, historians, activists, theorists, and theologians alongside classic and contemporary literary works, we will disrupt common understandings of violence. In conducting interviews with community members, engaging in classroom debate, and sharing ideas in a project-poster session, we will investigate violence in the UMD community and wider DC area, and propose ways toward revolutionary change.

iestricted to UH students matriculating in Fall 2020 or later. This course is part of the Revolution cluster. Revolution courses will not be offered after spring 2022, so you should only take HNUH218X if you have previously completed HNUH218A, which is the required I-Series course in this cluster. HNUH218A was last offered in the winter session (January 2022) and will not be offered again.

0101	Margaret Elwell TuTh 11:00am - 12:15pm	Seats (Total: 20) SQH 1111
0201	Margaret Elwell TuTh 12:30pm - 1:45pm	Seats (Total: 20) SQH 1111

HNUH218Z **Soundtrack to Revolution: Black Protest Music from Slave Ship to Soundcloud**

Credits: 3 Grading Method: Regular General Education: DSHU, DVUP

Invites students to hear a tradition of black protest music that reverberates from the slave ship to Soundcloud and beyond. Together we will ponder how black people have created, performed, broadcast, and mobilized music for protest, self-making, community-building, cultural critique, agitation, venting, healing, and joy. To hear what protest music sounds like, we will listen to Paul Robeson, Mahalia Jackson, Billie Holiday, Abbey Lincoln and Max Roach, Nina Simone, Fela Kuti, Marvin Gaye, Aretha Franklin, Bob Marley, Michael Jackson, Public Enemy, NWA, Lil' Kim, Lauryn Hill, Beyonce, and others. Must protest music set overt political statements to melody? How have black people mobilized music and art to shape their political conditions? What can music accomplish that artforms like literature and visual art cannot? How have various social justice and liberation movements deployed music? How has new media technology transformed protest? How does revolution sound to you?

Restricted to UH students matriculating in Fall 2020 or later. This course is part of the Revolution cluster. Revolution courses will not be offered after spring 2022, so you should only take HNUH218Z if you have previously completed HNUH218A, which is the required I-Series course in this cluster. HNUH 218A was last offered in the winter session(January 2022) and will not be offered again.

0101	La Marr Bruce Th 4:00pm - 6:30pm	Seats (Total: 20) TWS 1320

HNUH219P **Transform Maryland: Theories into Practice**

Credits: 3 Grading Method: Regular General Education: DSSP

In this intensive, 10-person seminar, students undertake a real-world consulting engagement for their client, the University of Maryland, to improve one of its operational processes. Working as a consulting team, students apply analysis, user-centered design, behavioral and social science methods in order to identify opportunities for innovation and recommend solutions. The one-semester engagement is broken into four phases--Frame, Explore, Analyze, and Recommend--through which students assess the potential for changing operations, addressing political differences, and the potential for technology to augment the streamlined process. The practicum focuses on transforming critical university administrative and business functions and culminates in a presentation to key members of the University of Maryland leadership team. The specific project changes from semester to semester.

Restricted to UH students matriculating in Fall 2020 or later. HNUH219P is the second course in the "Transform Maryland" Theory/Practice track. HNUH219T is the prerequisite for HNUH219P.

0101	Joseph Drasin, Megan MacKenzie Tu 4:00pm - 6:30pm	Seats (Total: 10) ARC 1125
0201	Joseph Drasin, Megan MacKenzie Tu 4:00pm - 6:30pm	Seats (Total: 10) ARC 1123

HNUH228A **Peace in our time? Conflict and Conflict Resolution in International Politics**

Credits: 3 Grading Method: Regular General Education: DSHS, SCIS

Is the world getting more peaceful? There are currently civil wars raging in much of the world and millions of people have fled these wars as refugees or internally displaced persons. Terrorist attacks kill thousands, and can occur in any corner of the planet. At the same time many actors use strategies such as peacekeeping, mediation, promotion of human rights and post-conflict justice to resolve conflicts and build peace. In this course, we will examine conflict, peace, and conflict resolution in contemporary international politics. We will interrogate concepts such as peace, conflict, and violence, the different forms that these phenomena can take, and how we can measure their occurrence. We will discuss theoretical explanations for why individuals and groups have disputes and why these actors choose to use violence (or not) in these disputes and examine these arguments in specific cases. We will analyze conflict resolution strategies such as mediation, peacekeeping, and human rights promotion both theoretically and empirically. This discussion will allow students to develop an argument for whether the world is getting more peaceful, why it is or is not, and what this could mean about the future of violence and peace.

Restricted to UH students matriculating in Fall 2020 or later. This course is the required I-Series course in the War & Peace cluster. War & Peace courses will not be offered after spring 2022. You should only take this course if you have either previously completed one coursein the War & Peace cluster, or if you will take both HNUH228A and one other War & Peace course together in spring 2022.

0101	Taylor Vincent, David Cunningham TuTh 11:00am - 12:15pm	Seats (Total: 60) ESJ 0215

HNUH228Y **Interrogating Issues of Piracy/Pirates amidst the Shadowy Landscapes of War & Peace**

Credits: 3 Grading Method: Regular General Education: DSHS, DVUP

Who are pirates and what constitutes piracy in a given era? To what extent do changing notions of piracy reflect major societal transformations at the national, regional and global levels, as well as reveal the contested and often overlapping boundaries of war and peace? How can we use pirates/piracy as a "tool" to engender an historical, economic, political, social, and cultural understanding of global forces and change? Do the legends and myths surrounding infamous pirates represent the realities and relationships of early and new forms of piracy? Could piracy be conceived as a form of counterculture? To what extent do piracy, rivalry, state building, war-making, peace-making all belong on the same continuum? This course examines pirates/piracy as an integral part of major global processes. We will investigate when and why piracy emerged and flourished, and how lawbreakers and lawmakers relate to one another on the murky terrains of power, then explore alternative ways to (re)configure who is a pirate and what constitutes piracy, especially within the dynamics of today's neo-liberal globalization.

Restricted to UH students matriculating in Fall 2020 or later. HNUH228Y is part of the War & Peace cluster. War & Peace courses will not be offered after spring 2022, so you should only take this course if you have either previously completed HNUH228A, or if you will take this course and HNUH228A together in spring 2022.

0101	Dorith Grant-Wisdom TuTh 11:00am - 12:15pm	Seats (Total: 20) KEY 0126
0201	Dorith Grant-Wisdom TuTh 2:00pm - 3:15pm	Seats (Total: 20) SQH 1111

HNUH228Z **The Problem of Prejudice: Overcoming Impediments to Global Peace and Justice**

Credits: 3 Grading Method: Regular General Education: DSHU

What is prejudice? How are our prejudices formed? What similarities and differences are there between various forms of prejudice across race, gender, nationality, politics, religion, among others? What is the relationship between prejudice and conflict? What is the role of prejudice in thinking about issues of peace and justice? How can we better understand the role that prejudice and discrimination have in a globalizing world? What can we learn from a scientific basis of knowledge about the causes of prejudice? This course will survey interdisciplinary scholarly research and popular cultural conversations about the root causes of prejudice and discrimination. You are expected to examine empirical evidence toward formulating your own views about the impact that all forms of prejudice impose on the human condition and the role it has played in your own life. Based on research evidence, the course encourages the search for solutions to the blight of prejudice.

Restricted to UH students matriculating in Fall 2020 or later. HNUH228Z is part of the War & Peace cluster. War & Peace courses will not be offered after Spring 2022, so you should only take this course if you have either previously completed HNUH228A, or if you will take this course and HNUH228A together in Spring 2022.

0101	Hoda Mahmoudi	Seats (Total: 20)
	Tu 2:00pm - 4:30pm	MOR 1101

HNUH229P **Climate in Crisis: Strategy and Advocacy**

Credits: 3 Grading Method: Regular General Education: DSSP

This theory and practice track examines theoretical frameworks for understanding climate change and concrete cases that shed light on the complexity of managing it. In this, the practical component of the Climate in Crisis track, we explore several domestic energy and climate policy case studies, examining the competing roles played by various interest groups that influence legislative and regulatory outcomes, with a focus on differing organizational advocacy strategies. Once we have mastered organizational advocacy strategies, students bring those tools to bear on the most recent US Federal policy mandates and legislation. In 229T, students will complement this work with a deep dive into the nature of public goods and climate change policy, among other crucial considerations.

Restricted to students who matriculated in Fall2020 or later. HNUH229P pairs with HNUH229T to complete the "Climate in Crisis" Theory/Practice track. This pair of courses can be taken in any order. fhis track will be offered at least through the 2021-22 academic year.

0101	Tyson Slocum	Seats (Total: 20)
	W 3:00pm - 5:30pm	EDU 2101

HNUH229T **Climate in Crisis: Politics and Ethics**

Credits: 3 Grading Method: Regular

This theory and practice track examines theoretical frameworks for understanding climate change and concrete cases that shed light on the complexity of managing it. In this, the theoretical component of the Climate in Crisis track, we investigate the nature of global public goods and questions about how best to provide them in a situation of multiple actors (states, NGOs, local and indigenous communities); climate change policy and justice; and the intersection of climate change with concerns about biodiversity conservation, food security, migration, and local development. Learning from this broad range of material gives students the complex perspective they need to grapple with the climate crisis. In 229P, students will complement this work with hands-on engagement at the level of Federal policy and legislation.

Restricted to University Honors students who matriculated in Fall2020 or later. HNUH229T pairs with HNUH229P to complete the "Climate in Crisis" Theory/Practice track. This pair of courses can be taken in any order. This track will be offered at least through the 2021-22 academic year.

0101	Thomas Hilde	Seats (Total: 20)
	Tu 3:30pm - 6:00pm	VMH 1207

HNUH238A **Deliberative Democracy**

Credits: 3 | Grading Method: Regular | General Education: DSHU, SCIS

How do we change our politics, save democracy, and move beyond the "us vs. them" culture that divides us? This course begins with the premise that how we talk to one another and debate controversial issues can promote the public good or erode it in irreparable ways. Students in each class session will put principles of public dialogue into practice as they learn deliberative theories and skills that can help save democracy. Class readings will turn to historical case studies to frame the most controversial political issues we face today.

Restricted to UH students matriculating in Fall 2020 or later. HNUH 238A is the required I-Series course in the Deliberation cluster. Deliberation courses will not be offered after spring 2022. You should only take this course if you have either previously completed one course in the Deliberation cluster, or if you will take both HNUH238A and one other Deliberation course together in spring 2022.

0101	Shawn Parry-Giles	Seats (Total: 60)
	MW 2:00pm - 3:15pm	HJP 2242

HNUH238Y **Information Weaponization: Thinking Critically in a Changing World**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS

Contemporary challenges--such as climate change, food, energy and water security, and deadly virus transmission--demand that people think critically. These challenges are often complex and interrelated; for example, society's increasing demand for energy contributes to human-induced climate change, which in turn, limits freshwater and food supplies, and which in turn, could contribute to the worldwide spread of disease. While many societal challenges are seriously impacting local, regional and global communities, an increasing availability of information has contributed to what many call a "Post-Truth Era," where emotions and personal beliefs override scientifically valid evidence and explanations. We will consider the institutional use of post-truth a form of information weaponization. This course asks how information weaponization impacts the evaluation of valid lines of evidence and explanations. How do we evaluate and what is needed to improve individuals' evaluations of claims in the post-truth era? Combatting mythological and unproductive thinking in the face of current change requires increased digital literacy. We will learn enhanced reasoning, evaluation skills, and critical thinking.

Restricted to UH students matriculating in Fall 2020 or later. HNUH238Y is part of the Deliberation cluster. Deliberation courses will not be offered after spring 2022, so you should only take this course if you have either previously completed HNUH238A, or if you will take this course and HNUH238A together in spring 2022.

0101	Doug Lombardi	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	PHY 4222

HNUH238Z **Learning as Deliberation: The Struggle for the Future of Public Education**

Credits: 3 Grading Method: Regular General Education: DSHU

This seminar invites students to deliberate about the historical roots of the policies and politics of public education in the United States. We will study how ideas about merit, democracy, and equity (or lack thereof) have shaped decisions about what public education should offer and to whom. We will look to alternative traditions of learning and study how these traditions have challenged and complemented public education. As we explore theories and practices of the past and present, students will learn to articulate and advocate for their own priorities in public higher education as 21st-century citizens of UMD. This course uses project based pedagogy. Students will create a proposal for teaching a facet of American History (Pedagogical Design Project) and engage in peer critique (presentation Q&A) to hone their critical skills.

Restricted to UH students matriculating in Fall 2020 or later. HNUH238Z is part of the Deliberation cluster. Deliberation courses will not be offered after spring 2022, so you should only take this course if you have either previously completed HNUH238A, or if you will take this course and HNUH238A together in spring 2022.

0101	Robert Chiles	Seats (Total: 20)
	Th 6:00pm - 8:30pm	TLF 1103

HNUH248A **Identity, Places, & Spaces**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSHS, DVUP, SCIS

Students in this interdisciplinary course will explore multi-layered issues related to privilege and oppression through their own life experiences via exposure to theory, research, film, memoirs, and current events. Students will evaluate and critique common assumptions about the meaning and experiences of privilege and oppression using Intersectionality theory as a guiding framework. The human experience related to various social identities (i.e., race, gender and gender identity, sexual orientation, social class, religion, age, and ability) will be addressed.

Restricted to UH students matriculating in Fall 2020 or later. This course is the required I-Series course in the Identity & Intersectionality cluster. Identity & Intersectionality courses will not be offered after spring 2022. Yyou should only take this course if you have either previously completed one course in the Identity &Intersectionality cluster, or if you will take both HNUH248A and one other Identity & Intersectionality course together in spring 2022.

0101	Mia A Smith-Bynum	Seats (Total: 60)
	TuTh 9:30am - 10:45am	ESJ 2309

HNUH248X **My Hometown, Our Wilderness: Ecology of Identity**

Credits: 3 Grading Method: Regular General Education: DSHU, DVUP

What has been the setting of your life? Suburbs? Cities? A farm? We may be used to thinking of environments as equal access across society, since everyone is free to visit our National Parks or spend a day at the beach. But there are striking ways in which identity affects our habitat. Race, class, gender, sexual preference, and other markers have strong influences on where we spend our time, what we eat, and how we work and relax. Suburbs, cities, wilds, and farms are not just physical places, they exhibit histories of social inclusion and exclusion. For example, the money and free time of affluent Americans serves as a portal to leisure spaces that would be inaccessible to working-class Americans who lack the ability to take time off, drive or fly long distances, and pay for it all. We'll profile identity ecology through the poetry of African American urban naturalists, essays of wilderness-loving men like Edward Abbey, the comedy of white environmental outrage, and the racialized class tensions in resorts like Aspen, CO. This survey will support your in-depth personal exploration of identity ecology in a collaborative video media project.

Restricted to UH students matriculating in Fall 2020 or later. HNUH248X is part of theIdentity &Intersectionalitycluster. Identity & Intersectionality courses will not be offered after spring 2022,so you should only take this course if you have either previously completed HNUH248A, or if you will take this course and HNUH248A together in spring 2022.

0101	Heidi Scott TuTh 11:00am - 12:15pm	Seats (Total: 20) ESJ B0320
0201	Heidi Scott TuTh 12:30pm - 1:45pm	Seats (Total: 20) ESJ 2309

HNUH248Y **How Do You "Man Up?": Men, Masculinity, and Mental Health**

Credits: 3 Grading Method: Regular General Education: DSHS, DVUP

In August 2018, the American Psychological Association released guidelines regarding the best practices for researchers and mental health professionals when working with boys and men. Many reacted with the question, "are we treating masculinity as a mental health issue?" This course aims to answer that question by taking a historical perspective on how American society has viewed masculinity from the beginning of psychology as a field of study until present day. An intersectional approach will be taken to better understand how race, ethnicity, sexual orientation, gender identity, and socioeconomic status impact men and masculinity. We will address the questions: How does one prove their manhood? How much of masculinity is biological versus socialized? What experiences are unique to men? And how do psychologists and mental health professionals understand and address mental health concerns among men?

Restricted to UH students matriculating in Fall 2020 or later.HNUH248Y is part of the Identity & Intersectionality cluster. IdentityIntersectionality courses will not be offered after spring 2022, so you should only take this course if you have either previously completed HNUH248A, or if you will take this course and HNUH248A together in spring 2022.

0101	Monica Kearney	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	MTH B0429

HNUH258A **Harvesting Big Data to Examine Agriculture and Climate Change**

Credits: 3 Grading Method: Regular General Education: DSSP, SCIS

Can agricultural production keep up with climate change? Data analytics and data science are driving the force behind the digital revolution, which has changed the way we are able to analyze and interpret the world. The explosion of data offers both opportunities and challenges that require new tools and methods of analysis. This course applies sophisticated digital tools to an age-old concern: the impact of environmental change and extreme weather on agricultural productivity. In this hands-on introduction to data analysis and visualization with real-world data, students acquire the tools to understand the impacts of environmental change and more.

Restricted to students in University Honors who matriculated infall 2020 or later. This course is the required I-Series class in the Information and Power cluster. Information and Power courses will be offered through spring 2023.

0101	James Archsmith	Seats (Total: 50)
	TuTh 2:00pm - 3:15pm	ESJ 1215

HNUH258Y **The Power of the Writing Voice**

Credits: 3 Grading Method: Regular

Words have power to ignite political storms, protest movements, and revolutions. Throughout history, writers have used their voices to create stories that have transformed the world. This course will examine powerful voices in history that have inspired social, political, economic, environmental and cultural change. Students will critically examine the power of these voices through the written word, lectures, and various other media. By critically listening to revolutionary speeches and "Soul" music, and by critically reading literature and essays, students will sharpen their own writing voices. As students explore the complex, dynamic relationships between the written word and cultural change, they will gain insight into the nature of power and influence.

Restricted to UH students who matriculated in Fall 2020 or later. This course is part of the Information and Power Thematic Cluster and must be paired with HNUH 258A to complete the cluster. Information and Power courses will be offered through Spring 2023.

0101	DeNeen Brown W 3:00pm - 5:30pm	Seats (Total: 20) KNI 3202	

HNUH268A **Arbitrating our Bodily Rights: Consent to Sex, Medical Treatment, Body Art, Organ Donation, and Research Participation**

Credits: 3 Grading Method: Regular General Education: DSHU, SCIS

Both American law and conventional morality support the view that human beings have bodily rights - ones we can waive by giving another person our consent to do what would otherwise be a rights violation. Yet, debate about the sovereignty of an individual's body and the potential rights of others--including the state--over our bodies lies at the core of some of the most contentious issues facing us as a society. This class will investigate the thorny debates that pertain to consent in sexual relations, medicine and research, and bodily markets. What types threats, offers, or cognitive incapacities undermine true consent? How do we evaluate the moral or legal significance of bodily rights when they come into tension with the government's interest? After evaluating arguments, exploring distinctions, and using philosophical tools to arrive at reasoned conclusions about consent, students will learn to apply these conceptual tools to cases from fiction and current events.

Restricted to University Honors students matriculating in Fall 2020 and later. This course is the required I-Series class in the Body Politics cluster. Body Politics courses will be offered through Spring 2023."

0101	Hallie Liberto MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 20) SKN 0104 KEY 0126	 Discussion
0102	Hallie Liberto MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 20) SKN 0104 KEY 0126	 Discussion
0103	Hallie Liberto MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 20) SKN 0104 KEY 0126	 Discussion

HNUH268H **Contested Bodies: Religion, Race, and Narrative**

Credits: 3 Grading Method: Regular

What does your body express about who you are and what you believe? How do you perceive your body, and what role do public expectations, social values, and cultural norms play in that perception? With Muslim women as our primary case study, this course asks students to engage with the lived experience of bodies perceived as passive, vulnerable, or even violent in the Western context, and to evaluate their construction of agency. Through engagement with politics, religion, race, and transnational feminism, we will explore how bodies are expressed, contested, subjugated, and violated within various configurations of power and governance. We will encounter personal narratives--and create our own--to understand how bodies also resist the persistent forces that seek to shape their image.

Restricted to UH students who matriculated in Fall 2020 or later. This course is part of the Body Politics thematic cluster and pairs with HNUH268A to complete the cluster. Body Politics courses will be offered through Spring 2023.

0101	Nabila Hijazi MW 12:00pm - 1:15pm	Seats (Total: 20) JMZ 1226
0201	Nabila Hijazi MW 2:00pm - 3:15pm	Seats (Total: 19) JMZ 0118

HNUH278A **The Research Behind Headlines on Words, Thought, and Behavior**

Credits: 3 Grading Method: Regular General Education: DSHS, SCIS

Cross-listed with: HESP214. Credit only granted for: HNUH278A or HESP214.

How does the human mind use language? Type "Language Science News" into your Google search bar. Among the more than 3 billion hits, headlines like "What is love? It depends what language you speak" and "Science's English dominance hinders diversity" invite you to think about the impact of words on thought and behavior. These are stories about how humans acquire and use language, but they ultimately address big questions about how we experience knowledge itself. In a world of unprecedented access to science journalism, did you ever read a headline about human behavior and wonder: How do we know? This class takes up the elegant ways cognitive scientists design experiments to answer crucial questions about language and thought, brain and behavior, that have no intuitive answers. Students will dive deep into the media coverage of their favorite claims about what we know, debate the psychological science behind these claims, and develop transferable critical-thinking skills in the process.

Restricted to UH students matriculating in Fall 2020 and later. This course is the required I-Series course in the "In A Word" thematic cluster. Other courses in the "In A Word" cluster will be offered through Spring 2023; and HNUH278A will be offered through Fall 2023.

0101	Jared Novick MW 2:00pm - 3:15pm	Seats (Total: 60) TYD 0117

HNUH278X **A Way with Words: Order and Knowledge in Enlightenment Europe**

Credits: 3 Grading Method: Regular General Education: DSHU, DVUP

"Without language, things cannot well be expressed or published to the World," wrote Edward Phillips in The New World of English Words (1658). In this course, we will interrogate the power of words to communicate and classify, to impose meaning and order in the historical moment that brought about many of our modern institutions and ways of thinking: the European Enlightenment. From the binomial taxonomies with which Linnaeus ordered "chaos and confusion" to the racist taxonomies deployed to reinforce inequities, we will survey how language facilitated the consolidation of European power at home and abroad. We will further develop the visual literacy to decode how images convey knowledge. Looking back to the period that gave shape to many modern languages, institutions, and divisions of knowledge, we will be poised to face today's crises.

Restricted to UH students matriculating in Fall 2020 or later. HNUH278X is part of the In A Word thematic cluster and must be paired with HNUH278A to complete the cluster. In A Word courses will be offered through Spring 2023.

0101	Lauren Cannady MW 12:00pm - 1:15pm	Seats (Total: 20) TYD 2106
0201	Lauren Cannady MW 2:00pm - 3:15pm	Seats (Total: 20) TWS 1320

HNUH278Y **Science in an Age of Truthiness**

Credits: 3 Grading Method: Regular General Education: DSNS

Credit only granted for: HONR299I or HNUH278Y. Formerly: HONR299I.

Scientific research has the power to advance understanding, create new technologies, and improve our lives. And yet scientific language - which is essential for these achievements - can be appear opaque and untrustworthy to non-scientists. Indeed, the fact that scientific understanding develops over time can even make the knowledge seem capricious. As a result, science is both unfairly maligned and unrealistically praised, sometimes even in the same breath. Through both the philosophy of science and historical scientific literature, we will survey how scientists have done and expressed science. Students will be empowered to critically evaluate current conceptions of science as these are revealed in the debates around climate change and COVID-19.

Restricted to UH students matriculating in Fall 2020 or later. This course is part of the In A Word Thematic Cluster and must be paired with HNUH278A to complete the cluster. In A Word courses will be offered through Spring 2023.

0101	Christopher Capp TuTh 3:30pm - 4:45pm	Seats (Total: 20) EGR 3102

HNUH288A **Welcome to the Party: Race, Nightlife, and Identity in America**

Credits: 3 | Grading Method: Regular | General Education: DSHU, SCIS

How does play shape our humanity and national identity? We often define people by the work that they do, whereas we tend to think of leisure and after work playfulness as a release from that identity. This course takes up a particular form of play--nightlife--to reckon with how it shapes what it means to be human and how it impacts nationhood, particularly around matters of race and oppression. Spanning from slavery to the present, this course examines how nightlife has been used to deny black people's humanity and been a vital site of playfulness, manifest as joy, resistance, self-making, and aesthetic innovation. Using performance studies to make sense of the world, our explorations will range from cakewalk dance competitions on plantations to queer night clubs. Once students better understand how nightlife is vital to the making and the unmaking of black people's humanity, they will grapple with play as a meaning-maker in their own lives and in our democracy.

Restricted to University Honors students matriculating in Fall 2020 and later. This course is the required I-Series class in the Virtually Human cluster. Virtually Human courses will be offered through Spring 2023

0101	Julius Fleming TuTh 3:30pm - 4:44pm	Seats (Total: 60) ASY 1213

HNUH288X **The Human Interface, from Anatomy to Avatar**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Anthropomorphized pets post on Instagram, FitBits transmit biodata, bots influence elections... In the digital world designed by and for human beings, all sorts of actors imitate people, while people are objectified through surveillance and data mining. Despite a frequent distinction between the internet and 'IRL,' physical bodies are wrapped up in every aspect of existence online: from the factory workers who build our technology to the postures and gestures those devices require us to adopt. Exploring this range of bodily phenomena, this course considers what constitutes a "human body" online and how digitality and connectivity inform our understanding of personhood. From RPGs and dance challenges to AI and visceral responses to internet content, students will analyze the complex relationships between the technological and the embodied, the social and the political, the past and the future.

Restricted to UH students matriculating in Fall 2020 or later. HNUH288X is part of the "Virtually Human" thematic cluster. Virtually Human courses will be offered through Spring 2023.

0101	Alexandra Harlig MW 3:00pm - 4:15pm	Seats (Total: 20) JMZ 0122
0201	Alexandra Harlig TuTh 3:30pm - 4:45pm	Seats (Total: 20) JMZ 2122

HNUH288Y **What You Are and Why it Matters**

Credits: 3 Grading Method: Regular

Who you are is interesting and important, but not the subject of this course. What you are is closer to our topic but not yet specific enough; after all, you are many things: a student, a citizen, a driver, a Terp, and so on. This course asks deeper and more elusive questions: what kind of being are you? What is your fundamental nature--the nature you share with others and that simultaneously grounds your individuality? We will work to answer these questions and investigate the limits of our nature, from the possibilities of time travel and teletransportation to the realities of dissociative identity disorder and conjoined twins. The insights we glean will help us grapple with the nature of human existence--from what happens when you die, to our responsibilities toward others, to nothing less than the meaning of life.

Restricted to UH students matriculating in Fall 2020 or later. This course is part of the "Virtually Human" thematic cluster. Virtually Human courses will be offered through Spring 2023.

0101	Stephan Blatti MW 3:00pm - 4:15pm	Seats (Total: 20) EDU 3233

HNUH300 **Vantage Point Seminar**

Credits: 2 Grading Method: Regular

Goal-setting and project-design seminar required of all UH students and taken in the second semester of the sophomore year or the first semester of the junior year.

Restricted to UH students matriculating in Fall 2020 or later. Vantage Point is for UH students in their 4th or 5th semester who have already completed or are completing their second cluster or track for the UH Citation.

0101	Leigha McReynolds, Christine Jones TuTh 1:00pm - 1:50pm	Seats (Total: 22) PLS 1172
0201	Christine Jones, Lauren Cannady TuTh 3:30pm - 4:20pm	Seats (Total: 22) ASY 3203
0301	Christine Jones, Alexandra Harlig MW 2:00pm - 2:50pm	Seats (Total: 22) EDU 3233
0601	Christine Jones, Veronica Zebadua-Yanez TuTh 3:30pm - 4:20pm	Seats (Total: 22) KNI 1206
0701	Marisa Franco, Christine Jones TuTh 3:30pm - 4:20pm	Seats (Total: 22) JMZ 3203

0801	Christine Jones, Ingrid Satelmajer MW 2:00pm - 2:50pm	Seats (Total: 21) HBK 0109
0901	Ingrid Satelmajer, Christine Jones MW 3:00pm - 3:50pm	Seats (Total: 21) HBK 0109
1001	Ingrid Satelmajer, Christine Jones MW 1:00pm - 1:50pm	Seats (Total: 21) HBK 0109
1002	Ingrid Satelmajer, Christine Jones MW 4:00pm - 4:50pm	Seats (Total: 20) HBK 0109

HNUH398P **Federal and Global Experiential Learning**

Credits: 3-9 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Restriction: Permission of instructor. Repeatable to 9 credits if content differs. Cross-listed with: FGSM398. Credit only granted for: FGSM398 or HNUH398P.

This is the experiential course component of the Federal Fellows Program and Global Fellows Program.

0101	Jayakumar Arasan, Joan Burton, Naz Beyranvand M 6:30pm - 7:40pm	Seats (Total: 75) TYD 1102
0201	Joan Burton, Naz Beyranvand, Jayakumar Arasan Th 6:30pm - 7:40pm	Seats (Total: 75) TWS 1310

HONR Honors Spring 2022

HONR338J **Teaching and Learning about Cultural Diversity through Intergroup Dialogue: Dialogue Facilitation Practicum**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVCC

Cross-listed with: CHSE338J, CPSP369J. Credit only granted for: CHSE338J, HONR338J, or CPSP369J.

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on identity-based topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

Restricted to students in the Honors College and College Park Scholars.

0101	Jazmin Pichardo, Carlton Green	Seats (Total: 18)
	Th 3:30pm - 6:00pm	CCC 1115

HONR348L **Advanced Honors Seminar; Literature of London**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A series of seminars, often interdisciplinary and sometimes team taught. The subjects will vary from semester to semester.

Contact department for information to register for this course.

HONR349V **Honors Colloquium; Dubai: Global Immersion Experience**

Credits: 3 Grading Method: Regular, Pass-Fail

A series of seminars, often interdisciplinary and sometimes team taught. Subjects may vary.

Contact department for information to register for this course.

HONR358C **Honors Practicum**

(Perm req)

Credits: 3 Grading Method: Sat-Fail

For student section leaders of HONR100 or HONR200.

Contact department for information to register for this course.

HONR379W **Maryland General Assembly Writing Internship**

(Perm req)

Credits: 6 Grading Method: Regular, Pass-Fail General Education: DSSP

Prerequisite: ENGL381 or HONR368A. Restriction: Minimum cumulative GPA of 3.0; and must have earned a minimum of 60 credits; and must be admitted to the MGA program. Cross-listed with: ENGL388M. Credit only granted for: ENGL388M or HONR379W.

Experiential learning at the Maryland General Assembly (early January through early April). Interns participate in standard office tasks, research legislative issues, and draft legislative texts such as constituent letters, notes on bills, newsletters, policy memos, and testimony. Specific assignments vary according to the host legislator's needs and the intern's schedule.

Prerequisite: permission of department and completion of either ENGL381 or HONR368A. Cross-listed with ENGL388M. Credit granted for ENGL388M or HONR379W.

Click here for more information.

0101	Thomas Lowderbaugh	Seats (Total: 15)
	Contact instructor or department for details.	

HONR388 **Honors Thesis or Project**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

IDEA Academy for Innovation & Entrepreneurship Spring 2022

IDEA247 **Becoming a Design Thinker**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: IDEA247 or IDEA345. Formerly: IDEA247.

Learn design thinking tools and mindsets to create change in meaningful ways and cultivate your curiosity in this dynamic, hands-on course. Encounter new approaches to learning from others, synthesizing qualitative data, visualizing your ideas, and navigating ambiguity (among others!) while applying the tools and techniques to real-world applications. No prior experience or knowledge of design thinking is needed.

0101	Brooke Smith, Christina Hnatov	Seats (Total: 20)
	F 12:00pm - 1:30pm	Location: TBA
	Contact instructor or department for details.	

IDEA258A **Special Topics in Innovation; Becoming a Design Thinker: Mindsets and Tools for Innovation**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Special topics in innovation

This introductory course allows students to try on the behaviors of a creative problem-solver, leveraging the methods and tools of design thinking, a human-centered innovation process. This is a highly experiential, often experimental course. All majors are encouraged to enroll.

0101	Mira Azarm, Christina Hnatov M 2:00pm - 3:30pm	Seats (Total: 30) ESJ 2101
0102	Dean Chang Class time/details on ELMs	Seats (Total: 60) ONLINE
0103	Brooke Smith Class time/details on ELMs	Seats (Total: 60) ONLINE

IDEA258C **Special Topics in Innovation; Designing Ethical Campaigns**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Special topics in innovation

Have you ever wondered how to strategically contribute to a cause you care about and how to convince others to care as well? Throughout the semester students will be able to apply their knowledge to designing a campaign that can make tangible differences, but stay true to their core values. We will explore various scenarios and hold discussions on ethics to help you better understand the different components of running an ethical campaign. Our assignments and activities will allow for students to have hands-on engagement with different target audiences at UMD to create and test their own ethical campaigns. For more details about the course, visit here.

0101	Mira Azarm Th 4:00pm - 5:15pm	Seats (Total: 25) ESJ 2101

IDEA258D **Special Topics in Innovation; Explorations in Design**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Special topics in innovation

Students are given the opportunity to apply their unique backgrounds to the realm of design. They will engage in hands-on learning with real world applications to incorporate design thinking into everyday life. By exploring each stage of the design process (from ideating to prototyping), students will develop a final project to pitch at the end of the semester.

0101	Brooke Smith F 2:00pm - 3:15pm	Seats (Total: 20) ESJ 2101

IDEA258U **Special Topics in Innovation; Introduction to UI/UX Design**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Special topics in innovation

What does "User Experience" mean? It was a term coined by cognitive psychologist and designer Don Norman in the 1990s on the cusp of the new digital era; however, the field in practice has existed long before that. Unfortunately, due to its over use and misuse, the pure concept of UX has become lost in the weeds and details of all of its components and methods. In this course, we will take a deep look at the true meaning of UX as simply "a user's experience" and what that means for you as both a designer and a user. You will learn about core UX principles and methodologies from both an academic and practical standpoint and be challenged to apply what you learn in classroom workshops and assignments. Finally, you will be asked to think both inside and outside the bounds of technology to find innovative solutions to real world design problems. For more details about the course, visit here.

0101	Mira Azarm	Seats (Total: 25)
	M 4:00pm - 5:30pm	ESJ 2101

IDEA379A **Advanced Topics in Innovation; Design your Purpose**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Advanced topics in innovation

What do you want to do once you graduate? That is the question we tackle in this course. Throughout the semester, you'll use design thinking and lean startup skills and mindsets to explore your personal and professional development goals and explore potential career paths. Using empathy, brainstorming, and prototyping tools, you'll design potential futures for yourself and test them to see if they are a good fit for you.

0101	Brooke Smith, Christina Hnatov	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

IDEA398A **Special Topics in Coaching; Coaching in STICs**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Special topics in coaching others

Contact department for information to register for this course.

IDEA430 **Creating your Own Venture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Learn to apply design thinking, jobs to be done theory, organizational behavior and lean methodology to create your own startup. Students will be in placed in teams, given an experienced mentor and will compete to win seed funding at the end of the course in a pitch competition. No entrepreneurship experience or idea necessary.

ESG1	Marc Steren F 11:00am - 12:30pm Contact instructor or department for details. *Restricted to undergraduate student in programs at Shady Grove. BMGT-Shady Grove students register for section SG91.*	Seats (Total: 20) BLD4 4335
SG91	Marc Steren F 11:00am - 12:30pm Contact instructor or department for details. *Restricted to BMGT-Shady Grove students. Undergraduate students in other Shady Grove programs register for section ESG1.*	Seats (Total: 12) BLD4 4335

IDEA698 Independent Study

Credits: 3 Grading Method: Regular, Audit

Graduate students apply design thinking and/or lean startup concepts to a real-world project. This course requires a high degree of self-direction in all aspects of the project including defining specific milestones and deliverables. There will be regular coaching from an Academy for Innovation and Entrepreneurship team member.

Prerequisite: Permission from the Academy for Innovation and Entrepreneurship. Repeatable to 6 credits.

0101	Mira Azarm Contact instructor or department for details.	Seats (Total: 1)

IMDM Immersive Media Design Spring 2022

IMDM101 Introduction to Immersive Media

Credits: 3 Grading Method: Regular

Credit only granted for: CMSC101 or IMDM101. Formerly: CMSC101.

An introduction to the basic practices, concepts and issues in Immersive Media Design. Conducted as a hybrid studio/lecture course, students will work collaboratively in teams to complete both research and practical projects, including surveying current artists and practice in immersive media; completing studio-based interactive projects that fuse computational media into physical objects; and working in teams to ideate and execute large scale, immersive media works.

0101	Mollye Bendell TuTh 11:00am - 12:15pm	Seats (Total: 30) HBK 0109
0201	Stevens Miller TuTh 3:30pm - 4:45pm	Seats (Total: 30) CSI 3118

IMDM150 **Digital Media Theory and Culture**

Credits: 3 Grading Method: Regular

Restriction: Must be in the Immersive Media Design program; or permission of IMDM - Immersive Media Design program. Credit only granted for: ARTT150 or IMDM150.

An introduction to the fundamental structures and themes of digital culture in contemporary society. This course will provide you with a theoretical grounding in which to understand the current landscape of digital media culture, design and art. As an introductory course for the Immersive Media Design major, the focus will be on contextualizing immersive digital media such as virtual reality, augmented reality, immersive projection, and electronic art installation through reading, writing and discussion. Students will have opportunities to experience a range of these technologies first hand.

0101	Cy Keener MW 11:00am - 12:15pm	Seats (Total: 50) CSI 2117

IMDM290 **Collaborative Studio I: Image + Time**

Credits: 3 Grading Method: Regular

Prerequisite: IMDM227 and ARTT255. Restriction: Restricted to Immersive Media Design Students. Additional information: Priority in enrollment will be given to students in IMDM(BS and BA) program.

Concept-driven and team-based collaborative studio course in which students work together in groups to create intellectually engaging and technically innovative works of Immersive Media Design. Student teams will combine their skill sets, technical and artistic, to produce creative works that combine image manipulation, generative images, creation, image and animation output technologies, video and audio recording, manipulation and production, and other forms of digital media assets that can be integrated into immersive media pipelines such as virtual reality, augmented reality, and other interactive forms. In working collaboratively, student teams will use team and assest management processes and tools that reflects contemporary practices in the fields of art, design, software, and the creative industries.

0101	Roger Eastman	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	JMP 2202

IMDM498A **Special Topics in Immersive Media; Augmented Reality Design for Creatives and Coders**

(Perm req)

Credits: 3 Grading Method: Regular

Special topics in current and emerging areas of Immersive Media Design.

A project-based course that will introduce the fundamental elements of concept creation, team collaboration, and technical skills necessary to build augmented reality (AR) experiences. Students will explore what exactly makes an AR experience and how AR offers new ways to create immersive and interactive narratives that combine digital and physical worlds. Restricted to junior/senior students and permission of instructor. For permission, email instructor: martinjd@umd.edu.

0101	Jonathan Martin	Seats (Total: 20)
	MW 3:30pm - 5:50pm	ESJ B0322

IMMR Immigration Studies Spring 2022

IMMR394 **Growing Up Asian American: The Asian Immigrant Family and the Second Generation**

Credits: 3 Grading Method: Regular General Education: DVCC

Cross-listed with: AAST394, AMST324. Credit only granted for: AAST394, AAST398E, AMST324, AMST328V, IMMR319G or IMMR394. Formerly: AAST398E.

An interdisciplinary course examines the experiences of children of Asian immigrants in the U.S., focusing on intergenerational dynamics in the Asian immigrant family, their intersections with race, gender, class, sexuality, and religion, and how these shape second-generation Asian American life. Topics include identity and personhood, the model minority myth and education, work and leisure, language and communication, filiality and disownment, mental health and suicide.

0101	Yeram Cheong	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	TWS 0223

IMMR399 **Internship in Immigration/Migration Studies**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail

Internship experience with an organization that works with or studies migration or immigrant populations. This experiential learning course provides training that enriches the students' academic field of study and the IMMR transcript notation. Students submit a final written report of how the experience ties into their major field of study.

Restriction: Permission of IMMR department; and junior standing or higher. The Immigration and Migration Studies Internship program. Pre-professional experience in migration studies research, analysis, and writing in a variety of work settings. Contact department for information to register at globalmigration@umd.edu.

0101	Katarina Keane	Seats (Total: 1)
	Contact instructor or department for details.	

IMMR400 **Vital Voices: Oral Histories of the Immigrant Experience**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: HIST222; or IMMR200. Credit only granted for: HIST428N, IMMR400, THET428I, or THET498V.. Formerly: HIST428N.

An exploration of the dynamic subject of U.S. immigrant experience through the scope of individual immigrant life stories in a global context. Course will include an overview of U.S. and global immigration patterns and an introduction to the practice of oral history.

0101	Robert Chiles	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	ONLINE

IMMR419D **Special Topics in Immigration and Migration Studies; Citizens, Refugees, and Immigrants**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Thematic exploration of a topic in immigration or migration studies history with emphasis on understanding how the movement of people is relevant in the contemporary world.

Cross-listed with: USLT403 and AMST498N. Credit only granted for: USLT403, AMST498N, or IMMR419D. Citizenship, Refugee and Immigrant are guiding categories that often define the Latina/o community in the United States. Employing this analytical lens, this course critically engages with notions of exclusion and inclusion, which included documentation, status, race, gender, and power. To better understand how these ideas and processes work, students are introduced to the history of Latina/o migration, US immigration policies, racial formation theory, gender construction, borderland theory, and the politics of territoriality.

0101	Perla Guerrero	Seats (Total: 25)
	MW 2:00pm - 3:15pm	TWS 0134

INAG Institute of Applied Agriculture Spring 2022

INAG104 **Agricultural Mathematics**

Credits: 3

Grading Method: Regular, Audit

Restricted to students in the AGNR-Institute of Applied Agriculture department. Others by permission of the AGNR-Institute of Applied Agriculture department. The development of problem-solving skills often used in the everyday world of work. Problems involving soils, fertilizers, seeding rates, feed mixtures, and business finance. Development of mathematical skills in solving basic equations, the use of percent and ratios, and calculating various linear and cubic measurements.

0101	Temitope Fajingbesi MWF 9:00am - 9:50am	Seats (Total: 20) JUL 1123	

INAG105 **Soils and Fertilizers**

Credits: 3

Grading Method: Regular, Pass-Fail

Restriction: Must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department.

Soils and Fertilizers is an introductory course for students entering careers related to applied agricultural production. The course is divided into three subject areas: soil properties, soil fertility, and environmental concerns of using soils for agricultural production. Emphasis is placed upon the characteristics of Maryland soils which are similar to the soils in the mid-Atlantic region. The importance of nutrient management and non-point source pollution of the Chesapeake Bay are covered in the course.

Restriction: Must be a major in AGNR-College of Agriculture & Natural Resources. Others by permission of AGNR-institute of Applied Agriculture department.

0101	Kenneth Ingram MW 10:00am - 10:50am F 1:00pm - 2:50pm	Seats (Total: 14) JUL 1123 JUL 1111	 Lab
0102	Kenneth Ingram MW 10:00am - 10:50am F 10:00am - 11:50am	Seats (Total: 14) JUL 1123 JUL 1111	 Lab

INAG106 **Pesticide Use and Safety**

Credits: 2

Grading Method: Regular, Pass-Fail

Restriction: Must be in a major in AGNR-Institute of Applied Agriculture department; or must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department. Additional information: Priority enrollment will be given to students in the IAA program or to students in the College of Agriculture and Natural Resources (AGNR).

An overview of pesticide use and safety. Topics include environmental protection, labeling, personal safety, first aid, formulation and chemistry, equipment, disposal, storage, record-keeping and liability. The course prepares students to take the Maryland State test for a private applicator's license.

Restricted to students in the AGNR-Institute of Applied Agriculture department. Others by permission of the AGNR-Institute of Applied Agriculture department.

0101	Ronald Myers W 3:00pm - 4:50pm	Seats (Total: 25) JUL 1123

INAG110 **Oral Communication**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSOC

Credit only granted for: COMM107, COMM200, INAG110, JOUR130, THET285.

A study of how perception, self-concept, and verbal and nonverbal communications affect the communication process as it emerges in the workplace. The course provides skill training in speech writing, public speaking, group communication, interpersonal communication, listening, and responding.

0101	Eric Dunning MWF 8:00am - 8:50am	Seats (Total: 19) PLS 1168
0201	David Gormong MWF 8:00am - 8:50am	Seats (Total: 19) CHE 2145
0301	Robert Ballenger MWF 9:00am - 9:50am	Seats (Total: 19) CCC 1115
0401	Eric Dunning MWF 9:00am - 9:50am	Seats (Total: 19) PLS 1168
0501	David Gormong MWF 9:00am - 9:50am	Seats (Total: 19) CHE 2145
0701	David Gormong MWF 10:00am - 10:50am	Seats (Total: 19) CHE 2118
0801	Robert Ballenger MWF 11:00am - 11:50am	Seats (Total: 19) CCC 1115
0901	Lori Sefton MWF 11:00am - 11:50am	Seats (Total: 19) CHE 2145

1001	Chelsea Mays-Williams MWF 11:00am - 11:50am	Seats (Total: 19) HBK 0125
1101	Eric Dunning MWF 11:00am - 11:50am	Seats (Total: 19) PHY 4222
1201	George Kurtzweil MWF 12:00pm - 12:50pm	Seats (Total: 19) HBK 0123
1301	Lori Sefton MWF 12:00pm - 12:50pm	Seats (Total: 19) CHE 2145
1401	Chelsea Mays-Williams MWF 12:00pm - 12:50pm	Seats (Total: 19) HBK 0125
1501	Lori Sefton MWF 1:00pm - 1:50pm	Seats (Total: 19) CHE 2145
1601	Eric Dunning MWF 1:00pm - 1:50pm	Seats (Total: 19) SYM 0209
1701	George Kurtzweil MWF 1:00pm - 1:50pm	Seats (Total: 19) HBK 0123
1801	Chelsea Mays-Williams MWF 2:00pm - 2:50pm	Seats (Total: 19) EGR 3106
1901	George Kurtzweil MWF 2:00pm - 2:50pm	Seats (Total: 19) HBK 0123
2001	David Gormong MWF 2:00pm - 2:50pm	Seats (Total: 19) SYM 0209
2101	Amy Fisher MW 3:00pm - 4:15pm	Seats (Total: 19) PLS 1184
2201	Amy Fisher M 6:00pm - 8:50pm	Seats (Total: 19) PLS 1115
2301	Amy Fisher W 6:00pm - 8:50pm	Seats (Total: 19) PLS 1115

2401	David Gormong TuTh 8:00am - 9:15am	Seats (Total: 19) CHE 2145
2501	Eric Dunning TuTh 8:00am - 9:15am	Seats (Total: 19) CHE 2118
2601	David Gormong TuTh 9:30am - 10:45am	Seats (Total: 19) CHE 2145
2701	Eric Dunning TuTh 9:30am - 10:45am	Seats (Total: 19) CHE 2116
2801	Lori Sefton TuTh 9:30am - 10:45am	Seats (Total: 19) JMP 1202
2901	Lori Sefton TuTh 11:00am - 12:15pm	Seats (Total: 19) CHE 2116
3001	Chelsea Mays-Williams TuTh 11:00am - 12:15pm	Seats (Total: 19) HBK 0108
3101	Robert Ballenger TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1168
3201	Robert Ballenger TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1168
3301	Heather McHale TuTh 12:30pm - 1:45pm	Seats (Total: 19) CHE 2116
3401	Chelsea Mays-Williams TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1158
3501	George Kurtzweil TuTh 2:00pm - 3:15pm	Seats (Total: 19) PLS 1172
3601	Amy Fisher Tu 2:00pm - 3:15pm Th 2:00pm - 3:15pm	Seats (Total: 19) PLS 1168 PLS 1115

3701	Samuel Rubin TuTh 2:00pm - 3:15pm	Seats (Total: 19) CHE 2140
3801	George Kurtzweil TuTh 3:30pm - 4:45pm	Seats (Total: 19) PLS 1172
3901	Amy Fisher Tu 3:30pm - 4:45pm Th 3:30pm - 4:45pm	Seats (Total: 19) PLS 1168 PLS 1115
4001	Samuel Rubin TuTh 3:30pm - 4:45pm	Seats (Total: 19) ITV 1100
4101	Samuel Rubin MW 3:00pm - 4:15pm	Seats (Total: 19) ITV 1100
4201	Samuel Rubin MW 4:30pm - 5:45pm	Seats (Total: 19) ITV 1100
4301	Samuel Rubin Tu 6:00pm - 8:50pm	Seats (Total: 19) ITV 1100
4401	Samuel Rubin Th 6:00pm - 8:50pm	Seats (Total: 19) ITV 1100
4501	George Kurtzweil MW 3:00pm - 4:15pm	Seats (Total: 19) HBK 0123

INAG110S **Oral Communication**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSOC

Credit only granted for: COMM107, COMM200, INAG110, JOUR130, THET285.

A study of how perception, self-concept, and verbal and nonverbal communications affect the communication process as it emerges in the workplace. The course provides skill training in speech writing, public speaking, group communication, interpersonal communication, listening, and responding.

0601	Robert Ballenger MWF 10:00am - 10:50am	Seats (Total: 19) CCC 1115

INAG131 **Introduction to Agricultural Policy and Communication**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Must be a student in the Institute of Applied Agriculture; or must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department.

Introduction to Agricultural Policy and Communication equips students with the knowledge and skills needed to engage in real-world communication around timely issues in agriculture. This course covers basics of United States government and the policymaking process, current and historical policy issues in agriculture, advocacy communication strategies and tactics, and careers in policy and advocacy. This course focuses on practical skills application, as well as exposure to government and advocacy work in action, including field trips and guest speakers. Throughout the course, students will learn and practice communication methods both individually and in team-directed agriculture-related projects.

2201	Meredith Epstein MWF 1:00pm - 1:50pm	Seats (Total: 25) JUL 1123

INAG199 **Special Problems**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Restricted to students in the AGNR-Institute of Applied Agriculture department. Others by permission of the AGNR-Institute of Applied Agriculture department.

0101	Geoffrey Rinehart Contact instructor or department for details.	Seats (Total: 5)
0201	Meredith Epstein Contact instructor or department for details.	Seats (Total: 5)
0301	Kenneth Ingram Contact instructor or department for details.	Seats (Total: 5)
0401	Temitope Fajingbesi Contact instructor or department for details.	Seats (Total: 5)
0501	Heather McHale Contact instructor or department for details.	Seats (Total: 5)
0601	Glori Hyman Contact instructor or department for details.	Seats (Total: 5)

0701	Thomas Mazzone	Seats (Total: 5)
	Contact instructor or department for details.	

INAG199C **Special Problems; AgriScience**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restricted to students in the AGNR-Institute of Applied Agriculture department. Others by permission of the AGNR-Institute of Applied Agriculture department.

0101	Glori Hyman	Seats (Total: 5)
	Contact instructor or department for details.	

INAG199E **Special Problems; Professional Horticulture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Only open to IAA students who have successfully completed the approved CPH program of study with an unweighted cumulative grade point average of 3.0 or higher for all completed CPH courses as noted on the official high school transcript, and passed the student CPH certification exam administered by the Maryland Nursery, Landscape and Greenhouse Association, Inc. (MNLGA).

0101	Glori Hyman	Seats (Total: 10)
	Contact instructor or department for details.	

INAG204 **Agricultural Business Management**

Credits: 3 Grading Method: Regular, Pass-Fail

Recommended: INAG102. Restriction: Must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department. Additional information: Priority in enrollment will be given to students within the Institute of Applied Agriculture. May not count toward any BMGT major or minor requirement.

This course integrates various concepts related to managing a profitable agricultural business. Topics include business management and decision making, preparing a business plan, financial analysis and budgeting, risk and investment management, and small business taxes, among others. Students will gain relevant knowledge and skills as they complete the comprehensive business plan for successfully managing an agricultural business.

0101	Temitope Fajingbesi	Seats (Total: 30)
	MWF 12:00pm - 12:50pm	JUL 1123

INAG205 **Analyzing Alternative Enterprises**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department. Additional information: Priority in enrollment will be given to students within the Institute of Applied Agriculture.

This course identifies and analyzes alternative crops, livestock, and other agricultural business enterprises. Students assess sustainability, geographic adaptability and potential profitability of businesses through lectures, class projects, and presentations from farmers, entrepreneurs, and managers engaged in alternative enterprises. Topics may include value added approaches, organic crop production, and recreational agricultural pursuits.

0101	Meredith Epstein TuTh 11:00am - 12:15pm	Seats (Total: 25) JUL 1123

INAG206 **Agricultural Business Law**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Students at the Institute of Applied Agriculture (IAA); or students at the College of Agriculture and Natural Resources (AGNR); or permission may be granted to other students based on available space. Additional information: Course cannot be used to fulfill a requirement for a Robert H. Smith School of Business major or minor.

This course introduces various legal concepts and their relationships to agricultural business and transactions. Topics include torts, criminal law, contracts, promissory notes, property, partnerships, business entities, employment, and bankruptcy, among others. Students will gain a general understanding of the legal system that will help them manage and/or operate profitable agricultural businesses.

0101	Michael Grady, Glori Hyman W 5:30pm - 8:30pm	Seats (Total: 30) JUL 1123

INAG207 **Power and Machinery**

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: INAG250 or PLSC204. Restriction: Must be in a major within the AGNR-Institute of Applied Agriculture department; or permission of AGNR-Institute of Applied Agriculture department. Additional information: Priority will be given to IAA students and permission will be granted to AGNR students and others on a space available basis.

The basic principles of compact equipment management, including selection, maintenance, operation, adjustment and troubleshooting of agricultural machinery and power units, will be studied. The methods of power development, measurement, and transmission, through power trains both mechanical and hydraulic, will be studied. A systematic disassembly, analysis, diagnosis and reassembly of a small engine will be completed by each student.

0101	Thomas Mazzone	Seats (Total: 8)
	Tu 9:00am - 10:50am	ANS 0504
	Th 8:00am - 10:50am	ANS 0504

INAG215 **Business Management Principles for Turf Facilities**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: INAG107; or PLSC305. Restriction: Must be in a major within the AGNR-Institute of Applied Agriculture department; or must be in one of the following programs (Plant Sciences; Plant Sciences: Horticulture & Crop Production; Plant Sciences: Landscape Management; Plant Sciences: Plant Science; Plant Sciences: Turf & Golf Course Mgmt) ; or permission of AGNR-Institute of Applied Agriculture department. Additional information: Enrollment priority is given to students majoring in Turfgrass and Golf Course Management in the Institute of Applied Agriculture and Plant Science and Landscape Architecture.

An advanced course in turfgrass management with emphasis on development of maintenance operating budgets for labor, fertilization, pest control, and supplemental cultural practices for golf courses and athletic field facilities. An overview of the current trend in golf course design and construction and in athletic field construction practices will be covered. Students will be responsible for a presentation concerning some phase of turfgrass management relating to golf course or athletic field operations.

0101	Geoffrey Rinehart	Seats (Total: 15)
	MWF 11:00am - 11:50am	JUL 1123

INAG224 **Greenhouse and Plant Production Management**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: This course is open to students in AGNR. Priority enrollment will be given to students in the Institute of Applied Agriculture. All other majors will be granted permission based on available space. Credit only granted for: INAG 114 or INAG 224.

Principles of managing greenhouses--structures, coverings, lighting, irrigation, heating and cooling systems--and their effects on plant production. Plant propagation methods and environments will be analyzed and practiced.

0101	Kenneth Ingram	Seats (Total: 25)
	TuTh 2:00pm - 4:00pm	JUL 1111

INAG235 **Irrigation and Drainage**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of instructor. Credit only granted for: INAG235, PLSC235 or PLSC489I. Formerly: PLSC489I. Additional information: Priority enrollment will be given to IAA and PLSC majors. By permission for available seats.

An overview of U.S. and state water doctrines and plant water use rates. Irrigation systems for residential and athletic field use will be discussed covering such topics as hydraulics, sprinkler spacing, pipe selection and sizing, pumps, controllers, valves, and irrigation trouble shooting. Surface and subsurface drainage for turfgrass sites will also be covered.

0101	Geoffrey Rinehart	Seats (Total: 10)
	TuTh 2:00pm - 4:00pm	JUL 1123
	Open to AGNR and IAA students only.	

INAG244 **Herbaceous Plants**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major within the AGNR-Institute of Applied Agriculture department; or must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department. Credit only granted for: INAG244 or PLSC244.

Herbaceous plants are integral components of residential and commercial landscapes. Students will become familiar with 250 annual and perennial plants. The emphasis will be on plant management requirements and seasonal variation in the landscape.

0101	Kenneth Ingram	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	JUL 1111

INAG248 **Topics in Sustainable Agriculture**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Through readings, class discussions, and guest speakers, this one-credit seminar course exposes students to current trends, concerns and research in sustainable agriculture. It allows students to explore various interest areas and discuss a variety of topics as they relate to sustainable practices.

Students must be available to meet for three field trips -- dates are not yet confirmed.

0101	Meredith Epstein	Seats (Total: 25)
	Tu 6:00pm - 7:50pm	JUL 1123

INAG250 **Fundamentals of Agricultural Mechanics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major in AGNR-College of Agriculture & Natural Resources OR Permission of AGNR-Institute of Applied Agriculture Department. Credit only granted for: PLSC204 or INAG250. Additional information: Priority given to IAA majors and AGNR students whose major requires this course. Permission will be granted to other students on seats available basis.

A comprehensive course that teaches the fundamentals of agricultural related mechanics. Lecture and lab exercises will cover the broad range of topics associated with agricultural mechanics including electricity, plumbing, welding processes, and wood and metal working applications. Emphasis will be given to the design and installation of electrical circuits. It will also include project planning and implementation including development of safety protocols for each area of study and introduction of GPS equipment and software for survey data collection.

Students must pay a $70 course materials fee.

0101	Thomas Mazzone	Seats (Total: 10)
	MW 2:00pm - 5:00pm	ANS 0504

INAG252 **Agricultural Public Relations**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Recommended: INAG103.

Introduces the fundamental concepts and procedures of public relations in agriculture. Topics include understanding external audiences; key practices in agricultural media relations, social media, executive communication, and crisis communication; and managing the research, planning, and evaluation aspects of the public relations process. Students will gain the public relations knowledge and skills necessary for communicating effectively with an organization's external audiences.

0101	Heather McHale	Seats (Total: 25)
	TuTh 9:30am - 10:45am	JUL 1123

INFM Information Management Spring 2022

INFM605 **Users and Use Context**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies.

Use of information by individuals. Nature of information. Information behavior and mental models. Characteristics of problems, task analysis, problem solving, and decision making. Methods for determining information behavior and user needs. Information access. Information technology as a tool in information use.

IM01	Chad Doran	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

INFM612 **Management Concepts and Principles for Information Professionals**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies.

Key aspects of management - focusing on planning, organizing, leading and controlling. The evolution of management, innovative management for the changing world, management styles and leadership, managerial planning, goal setting and decision making. Ethical issues, designing adaptive organizations responding to change, global environment, diversity, and utilizing the appropriate technology to provide effective management of information programs and services.

IM01	Ping Wang	Seats (Total: 40)
	Th 6:00pm - 8:45pm	HBK 0103

INFM719 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular

Intensive individual study under faculty supervision.

Contact department for information to register for this course.

INFM737 **Information Management Capstone Experience**

Credits: 3 Grading Method: Sat-Fail

Prerequisite: INFM736; and must have earned a minimum of 27 credits in the MIM Program. Or permission of instructor. Restriction: Must be in Information Management (Master's) program; and permission of INFO-College of Information Studies.

The Information Management Capstone Experience I and II are the culminating experience of the Master of Information Management program, taken in the students final two semesters. The capstone experience provide students with the opportunity to integrate and synthesize the knowledge and skills acquired throughout their MIM course work while working in a real world Information Management project. These courses must be taken in succession.

IM01	David Loshin M 6:00pm - 8:45pm	Seats (Total: 40) ESJ 1309

INFM799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Intensive individual research course under the supervision of a faculty member.

Contact department for information to register for this course.

INST Information Studies Spring 2022

INST101 **Bits and Bytes of Computer and Information Sciences**

Credits: 1 Grading Method: Regular, Pass-Fail

Restriction: For first time freshmen and first time transfer students. Cross-listed with: CMSC100. Credit only granted for: CMSC100 or INST101.

Students are introduced to the fields (and disciplines) of computer science and information science within a small classroom setting. They will learn to make a successful transition from high school to the university, while exploring study skills, student success plans and research opportunities.

0101	Amy Vaillancourt Th 3:00pm - 3:50pm	Seats (Total: 40) EGR 0135
0201	Charlotte Avery F 11:00am - 11:50am	Seats (Total: 40) CSI 2120

INST104 **Design Across Campus**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

What is design, who does it, and how is it done? There is no one answer to this question--it depends on who you ask. The answers to these questions vary across disciplines and across the University campus. This course, designed with modules from contributors in UMD programs including Information Studies, Human-Computer Interaction, Graphic Design, Immersive Media Arts, Journalism, Architecture, Landscape Architecture, Engineering, and Policy, will introduce students to the goals and values, approaches, skills, and practices of diverse fields of design. It will enable students to identify grand challenges in design and serve as a sorting hat to help students find a design practice that matches their own values, approaches, skills and goals.

0101	Katie Shilton Tu 2:00pm - 4:45pm	Seats (Total: 50) ONLINE	

INST123 **Databases for All**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Restriction: Must not have completed or be currently taking INST327 or BMGT402.

An introduction to relational databases for students with no previous programming experience. Provides a means for students of diverse backgrounds to successfully learn how to store, retrieve, and maintain data in relational databases. Topics include a brief comparison of database systems with an emphasis on relational databases, fundamental relational database concepts, and data types. Includes technical approaches to accessing information stored in relational databases.

0101	Vedat Diker, Pamela Duffy Tu 12:30pm - 1:45pm Th 2:00pm - 3:15pm	Seats (Total: 50) SHM 2102 CCC 1205	Discussion
0102	Vedat Diker, Pamela Duffy Tu 12:30pm - 1:45pm Th 3:00pm - 4:15pm	Seats (Total: 50) SHM 2102 CCC 1100	Discussion
0103	Pamela Duffy, Vedat Diker Tu 12:30pm - 1:45pm Th 4:00pm - 5:15pm	Seats (Total: 50) SHM 2102 ATL 2428	Discussion

INST126 **Introduction to Programming for Information Science**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Math placement of STAT100 or higher. Restriction: Must not have completed INST326; and must be in Information Science, Technology and Information Design, or Social Data Science programs.

An introduction to computer programming for students with very limited or no previous programming experience. Topics include fundamental programming concepts such as variables, data types, assignments, arrays, conditionals, loops, functions, and I/O operations.

0101	Joel Chan TuTh 2:00pm - 3:15pm	Seats (Total: 65) ATL 1113
0102	Jennifer Proctor Class time/details on ELMs	Seats (Total: 65) ONLINE
0103	P Kshetry Class time/details on ELMs	Seats (Total: 65) ONLINE
0104	Carrie Lindeman MWF 9:00am - 9:50am	Seats (Total: 65) ONLINE

INST152 **"Fake Checking": Battling Misinformation and Disinformation in the Real World**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Examining the phenomenon of "fake news" using the principles of information literacy, students will develop their skills in locating, analyzing, and evaluating different information sources -- in the classroom, in their personal lives, and in the workplace.

0101	Ursula Gorham-Oscilowski TuTh 11:00am - 12:15pm	Seats (Total: 150) ONLINE

INST154 **Apollo at 50**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Examines Apollo mission, one of the greatest engineering accomplishments of all time, in which Neil Armstrong walked on the moon. Since the mission, people have asked: if we can land on the moon, why can't we eliminate poverty? Why can't we cure cancer? Why can't we prevent global warming? Asks what were the social, political, financial, scientific, engineering, operational, and human aspects of the Apollo program that came together to make the moon landings possible?

0101	Dennis Frezzo TuTh 5:00pm - 6:15pm	Seats (Total: 78) ESJ 0215

INST155 **Social Networking**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Credit only granted for: INFM289I or INST155. Formerly: INFM289I.

Introduces methods for analyzing and understanding how people use social media - social networking websites, blogging and microblogging, and other forms of online interaction and content generation - and their societal implications. Introduces students to the science and social science of network analysis. Through real world examples, including analysis of their own social networks, students develop skills for describing and understanding the patterns and usage of services like Facebook, Twitter, YouTube, and others.

0101	Babak Fotouhi Class time/details on ELMs	Seats (Total: 150) ONLINE	

INST201 **Introduction to Information Science**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS

Credit only granted for: INST201 or INST301. Formerly: INST301.

Examining the effects of new information technologies on how we conduct business, interact with friends, and go through our daily lives. Understanding how technical and social factors have influenced the evolution of information society. Evaluating the transformative power of information in education, policy, and entertainment, and the dark side of these changes.

0101	Fabian Faccio Class time/details on ELMs Class time/details on ELMs	Seats (Total: 50) ONLINE ONLINE	 Discussion
0102	Fabian Faccio Class time/details on ELMs Class time/details on ELMs	Seats (Total: 50) ONLINE ONLINE	 Discussion
0103	Fabian Faccio Class time/details on ELMs Class time/details on ELMs	Seats (Total: 50) ONLINE ONLINE	 Discussion
0201	Ryan O'Grady TuTh 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 50) ESJ 2208 PHY 1201	 Discussion

0202	Ryan O'Grady TuTh 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 50) ESJ 2208 KEY 0103	Discussion
0203	Ryan O'Grady TuTh 1:00pm - 1:50pm F 3:00pm - 3:50pm	Seats (Total: 50) ESJ 2208 KEY 0103	Discussion
0301	Caitlin Christian-Lamb Class time/details on ELMs	Seats (Total: 100) ONLINE	
0401	Courtney Douglass Class time/details on ELMs	Seats (Total: 100) ONLINE	

INST208B **Special Topics in Information Studies; Voice Tech Today**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Covers special topics in information studies.

The world of home conversational AI (intelligent voice assistants like Amazon Alexa and Google Home) spans multiple areas. Throughout the course, students will learn about intelligent voice agents, how they work, who they work for and examine privacy and security issues in the voice ecosystem all by using them in our virtual classroom. Because these systems are open in nature, rely on AI and use a variety of technologies they are particularly interesting to explore for vulnerabilities and possibilities.

0101	Galina Madjaroff TuTh 1:00pm - 2:15pm Class time/details on ELMs	Seats (Total: 60) ONLINE ONLINE	

INST208C **Special Topics in Information Studies; The Nuts and Bolts of Getting Hired**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Covers special topics in information studies.

0101	Katy Lawley Class time/details on ELMs	Seats (Total: 40) ONLINE	

INST208D **Special Topics in Information Studies; Designing Fair Systems**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Covers special topics in information studies.

Explores how policy shapes design and how design can act as de facto policy, focusing on emergent issues of algorithmic bias. Introduces students to interdisciplinary research on fairness, accountability, transparency, and justice in technical systems, bringing together fields such as law, computer science, and sociology. Students will learn how to assess the impact of automated decision-making in domains such as criminal justice and transportation, conduct audits of these systems, and communicate their results to the public and key decision makers.

0101	Daniel Greene TuTh 3:00pm - 4:15pm	Seats (Total: 50) HBK 1108

INST228 **Academic Peer Mentor Experience in Information Science; Academic Peer Mentor Experience in Information Science**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

Students who are participating in instructional activities for undergraduate courses offered by the College of Information Studies, or by faculty members of the College through other units, can take this course to earn course credit for their AMP work.

Restriction: Permission of INFO-College of Information Studies.

0123	Pamela Duffy Contact instructor or department for details.	Seats (Total: 15)
0126	P Kshetry Contact instructor or department for details.	Seats (Total: 15)
0154	Dennis Frezzo Contact instructor or department for details.	Seats (Total: 15)
0201	Instructor: TBA Contact instructor or department for details.	Seats (Total: 15)
0254	Instructor: TBA Contact instructor or department for details.	Seats (Total: 15)
0326	Gabriel Cruz, Aric Bills Contact instructor or department for details.	Seats (Total: 15)
0327	P Kshetry, Pamela Duffy Contact instructor or department for details.	Seats (Total: 25)

0335	Instructor: TBA Contact instructor or department for details.	Seats (Total: 15)
0352	Beth St Jean Contact instructor or department for details.	Seats (Total: 15)
0354	Instructor: TBA Contact instructor or department for details.	Seats (Total: 15)
0362	Instructor: TBA Contact instructor or department for details.	Seats (Total: 15)
0377	Alex Leitch Contact instructor or department for details.	Seats (Total: 15)
0398	Caro Williams-Pierce Contact instructor or department for details.	Seats (Total: 15)

INST309 **Independent Study in Information Science**

(Perm req)

Credits: 1-3 Grading Method: Regular

Individual independent study of an aspect of information science, selected according to student interest and need in consultation with a member of the iSchool faculty. Repeatable to 6 credits if content differs.

Contact department for information to register for this course.

INST311 **Information Organization**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in PSYC100 or SOCY105. Restriction: Must be in Technology and Information Design or Information Science program.

Examines the theories, concepts, and principles of information, information representation and organization, record structures, description, and classification. Topics to be covered in this course include the methods and strategies to develop systems for storage, organization, and retrieval of information in a variety of organizational and institutional settings, as well as policy, ethical, and social implications of these systems.

0101	Lee Lipscomb Class time/details on ELMs	Seats (Total: 150) ONLINE
0102	Ryan O'Grady TuTh 3:00pm - 4:15pm	Seats (Total: 150) MMH 1400

0103	Ryan O'Grady Class time/details on ELMs	Seats (Total: 100) ONLINE	

INST314 **Statistics for Information Science**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Minimum grade of C- in INST126 or GEOG276; and minimum grade of C- in STAT100, and MATH115 (or higher). Restriction: Must be in Information Science or Social Data Science program. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201.

Basic concepts in statistics including measure construction, data exploration, hypothesis development, hypothesis testing, pattern identification, and statistical analysis. The course also provides an overview of commonly used data manipulation and analytic tools. Through homework assignments, projects, and in-class activities, you will practice working with these techniques and tools to create information resources that can be used in individual and organizational decision-making and problem-solving.

0101	Hernisa Kacorri MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 50) ESJ 1224 IRB 2207	 Discussion
0102	Hernisa Kacorri MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 50) ESJ 1224 IRB 2207	 Discussion
0103	Hernisa Kacorri MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 50) ESJ 1224 IRB 2207	 Discussion
0201	Babak Fotouhi Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 50) ONLINE KEY 0103	 Discussion
0202	Babak Fotouhi Class time/details on ELMs F 2:00pm - 2:50pm	Seats (Total: 50) ONLINE TWS 1107	 Discussion
0203	Babak Fotouhi Class time/details on ELMs F 3:00pm - 3:50pm	Seats (Total: 50) ONLINE CHM 2201	 Discussion

INST326 **Object-Oriented Programming for Information Science**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in INST126 or GEOG276. Restriction: Must be in Information Science or Social Data Science program.

An introduction to programming, emphasizing understanding and implementation of applications using object-oriented techniques. Topics to be covered include program design and testing as well as implementation of programs.

0101	Aric Bills MWF 9:00am - 9:50am	Seats (Total: 50) HBK 0115	
0102	Aric Bills MWF 10:00am - 10:50am	Seats (Total: 50) HBK 0115	
0103	David Patrick Class time/details on ELMs	Seats (Total: 50) ONLINE	
0104	Gabriel Cruz Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 50) ONLINE CCC 1111	
0105	Gabriel Cruz Class time/details on ELMs F 2:00pm - 2:50pm	Seats (Total: 50) ONLINE CCC 1111	Discussion

INST327 **Database Design and Modeling**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Prerequisite: Minimum grade of C- in INST126 or GEOG276. Restriction: Must be in Information Science or Social Data Science program. Credit only granted for: INST327 or BMGT402.

Introduction to databases, the relational model, entity-relationship diagrams, user-oriented database design and normalization, and Structured Query Language (SQL). Through labs, tests, and a project, students develop both theoretical and practical knowledge of relational database systems.

0101	Vedat Diker, Pamela Duffy W 2:00pm - 2:50pm Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 50) JMZ 0220 ONLINE EGR 1108	Discussion

0102	Vedat Diker, Pamela Duffy W 2:00pm - 2:50pm Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 50) JMZ 0220 ONLINE EGR 1108	 Discussion
0103	Vedat Diker, Pamela Duffy W 2:00pm - 2:50pm Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 50) JMZ 0220 ONLINE EGR 1108	 Discussion
0201	Pamela Duffy Th 11:00am - 11:50am Class time/details on ELMs F 2:00pm - 2:50pm	Seats (Total: 50) ONLINE ONLINE ONLINE	 Discussion
0202	Pamela Duffy Th 11:00am - 11:50am Class time/details on ELMs F 3:00pm - 3:50pm	Seats (Total: 50) ONLINE ONLINE ONLINE	 Discussion
0203	Pamela Duffy Th 11:00am - 11:50am Class time/details on ELMs F 4:00pm - 4:50pm	Seats (Total: 50) ONLINE ONLINE ONLINE	 Discussion
ESG1	P Kshetry F 9:00am - 10:30am Class time/details on ELMs *Restricted to students in the BSIS @ USG Program.*	Seats (Total: 50) ONLINE ONLINE	

INST335 **Organizations, Management and Teamwork**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301); and minimum grade of C- in PSYC100. Restriction: Must be in Information Science program.

Examines principles, methods and types of leadership with an emphasis on goal setting, motivation, problem solving, and conflict resolution. Examines principles of developing teams and managing team projects through planning and execution, including estimating costs, managing risks, scheduling, staff and resource allocation, communication, tracking, and control. Trains students to recognize and capitalize on opportunities to use information to increase efficiency, improve performance, and support innovation within teams and organizations. Focuses on strategic use of emerging technologies and new information resources to execute information-enabled change.

0101	LaRia Rogers	Seats (Total: 30)	
	MW 12:00pm - 12:50pm Th 10:00am - 10:50am	ONLINE ONLINE	Discussion
0102	LaRia Rogers	Seats (Total: 30)	
	MW 12:00pm - 12:50pm Th 11:00am - 11:50am	ONLINE ONLINE	Discussion
0103	LaRia Rogers	Seats (Total: 30)	
	MW 12:00pm - 12:50pm Th 12:00pm - 12:50pm	ONLINE ONLINE	Discussion
0104	LaRia Rogers	Seats (Total: 30)	
	MW 12:00pm - 12:50pm Th 1:00pm - 1:50pm	ONLINE ONLINE	Discussion
0105	LaRia Rogers	Seats (Total: 30)	
	MW 12:00pm - 12:50pm Th 2:00pm - 2:50pm	ONLINE ONLINE	Discussion
0201	Philip Piety	Seats (Total: 30)	
	TuTh 1:00pm - 1:50pm F 1:00pm - 1:50pm	ESJ 1224 ONLINE	Discussion
0202	Philip Piety	Seats (Total: 30)	
	TuTh 1:00pm - 1:50pm F 1:00pm - 1:50pm	ESJ 1224 ONLINE	Discussion
0203	Philip Piety	Seats (Total: 30)	
	TuTh 1:00pm - 1:50pm F 1:00pm - 1:50pm	ESJ 1224 ONLINE	Discussion
0204	Philip Piety	Seats (Total: 30)	
	TuTh 1:00pm - 1:50pm F 1:00pm - 1:50pm	ESJ 1224 ONLINE	Discussion

0205	Philip Piety TuTh 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 30) ESJ 1224 ONLINE	 Discussion

INST341 **Introduction to Digital Curation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in INST311. Restriction: Must be in Technology and Information Design or Information Science programs.

Explores various dimensions and contexts for digital curation, which includes all activities involving the management, representation and preservation of both born-digital and digitized information. Focuses on opportunities, challenges and demands of every-increasing digital data and networked information infrastructure.

0101	Joseph Sherren TuTh 3:00pm - 3:50pm Class time/details on ELMs	Seats (Total: 40) CCC 1200 ONLINE	

INST346 **Technologies, Infrastructure and Architecture**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301); and 1 course with a minimum grade of C- from (INST326, CMSC131); and minimum grade of C- in INST327. Restriction: Must be in Information Science program; and permission of INFO-College of Information Studies. Credit only granted for: INST346 or BMGT405.

Examines the basic concepts of computer hardware, systems software, networking, client/server architectures, cloud computing, distributed systems, and high performance computing as applied to information rich domains. Technology and architectures will be discussed within the contexts of solving social issues, supportingscience, and conducting business operations. Current computing topics such as web environments, IoT, security, management, and policy will also be reviewed.

0101	Donal Heidenblad Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 34) ONLINE HBK 0103	 Discussion
0102	Donal Heidenblad Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 33) ONLINE HBK 0103	 Discussion

0103	Donal Heidenblad Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 33) ONLINE HBK 0103	 Discussion
0104	Donal Heidenblad Class time/details on ELMs	Seats (Total: 75) ONLINE	
0105	Dennis Frezzo Class time/details on ELMs	Seats (Total: 75) ONLINE	

INST352 **Information User Needs and Assessment**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- from INST201 or INST301; and minimum grade of C- in INST311. Restriction: Must be in Technology and Information Design or Information Science programs.

Focuses on use of information by individuals, including the theories, concepts, and principles of information, information behavior and mental models. Methods for determining information behavior and user needs, including accessibility issues will be examined and strategies for using information technology to support individual users and their specific needs will be explored.

0101	Beth St Jean MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 30) ONLINE ONLINE	 Discussion
0102	Beth St Jean MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 30) ONLINE ONLINE	 Discussion
0103	Beth St Jean MW 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 30) ONLINE ONLINE	 Discussion
0104	Beth St Jean MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 30) ONLINE ONLINE	 Discussion
0105	Beth St Jean MW 10:00am - 10:50am F 2:00pm - 2:50pm	Seats (Total: 30) ONLINE ONLINE	 Discussion

0201	Sidney Champagne Class time/details on ELMs	Seats (Total: 100) ONLINE
ESG1	Amanda Lazar Class time/details on ELMs *Restricted to students in the BSIS @ USG Program.*	Seats (Total: 50) ONLINE

INST354 **Decision-Making for Information Science**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301); and minimum grade of C- in INST126, INST314, MATH115, STAT100, and PSYC100. Restriction: Must be in Information Science program.

Examines the use of information in organizational and individual decision-making, including the roles of information professionals and information systems in informed decision-making through techniques such as data analysis and regression, optimization, sensitivity analysis, decision trees, risk analysis and business simulation models.

0101	Vikas Sahasrabudhe Class time/details on ELMs	Seats (Total: 150) ONLINE
0201	Kathy Weaver Class time/details on ELMs	Seats (Total: 100) ONLINE
ESG1	Kathy Weaver Class time/details on ELMs *Restricted to students in the BSIS @ USG Program.*	Seats (Total: 50) ONLINE

INST362 **User-Centered Design**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of a C- in INST201 or INST301; and minimum grade of C- in PSYC100 or SOCY105; and minimum grade of C- in INST326 and STAT100. Restriction: Must be in Technology and Information Design or Information Science programs.

Introduction to human-computer interaction (HCI), with a focus on how HCI connects psychology, information systems, computer science, and human factors. User-centered design and user interface implementation methods discussed include identifying user needs, understanding user behaviors, envisioning interfaces, and utilizing prototyping tools, with an emphasis on incorporating people in the design process from initial field observations to summative usability testing.

0101	Ting Wang MW 9:00am - 9:50am F 9:00am - 9:50am	Seats (Total: 30) HJP 0226 HBK 0302J	Discussion
0102	Ting Wang MW 9:00am - 9:50am F 10:00am - 10:50am	Seats (Total: 30) HJP 0226 HBK 0302J	Discussion
0103	Ting Wang MW 9:00am - 9:50am F 11:00am - 11:50am	Seats (Total: 30) HJP 0226 HBK 0302J	Discussion
0104	Ting Wang MW 9:00am - 9:50am F 12:00pm - 12:50pm	Seats (Total: 30) HJP 0226 HBK 0302J	Discussion
0105	Ting Wang MW 9:00am - 9:50am F 1:00pm - 1:50pm	Seats (Total: 30) HJP 0226 HBK 0302J	Discussion
0201	Dennis Frezzo Class time/details on ELMs	Seats (Total: 100) ONLINE	
ESG1	Elizabeth Bonsignore M 9:00am - 11:45am *Restricted to students in the BSIS @ USG Program.*	Seats (Total: 55) BLD4 3321	

INST364 **Human-Centered Cybersecurity**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301); and minimum grade of C- in INST126, INST327, STAT100, MATH115, and PSYC100. Restriction: Must be in Information Science program.

Cybersecurity is fundamentally a problem of human interaction with technology, but its technical challenges are better understood than its human challenges. This course is designed to give you an overview of human interactions with cybersecurity technology, from users to system designers. Using the information gleaned in this course, you should be able to make better predictions about how people react to cybersecurity policies and tools, and how those reactions shape organizational behavior. The earlier part of the course focuses on explanations for behavior, while the later parts of the course focus more on the development and evaluation of tools for assisting people in cybersecurity.

0101	Susan Campbell TuTh 9:30am - 10:45am	Seats (Total: 50) CSI 1122

INST366 **Privacy, Security and Ethics for Big Data**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in INST126 or GEOG276; and minimum grade of C- in STAT100; and minimum grade of C- in one of the following (AASP101, ANTH210, ANTH260, ECON200, ECON201, GEOG202, GVPT170, PSYC100, or SOCY100). Restriction: Must be in Technology and Information Design, Information Science, or Social Data Science programs.

Evaluates major privacy and security questions raised by big data, Internet of things (IoT), wearables, ubiquitous sensing, social sharing platforms, and other AI-driven systems. Covers history of research ethics and considers how ethical frameworks can and should be applied to digital data.

0101	Galina Madjaroff Class time/details on ELMs	Seats (Total: 50) ONLINE
0102	Jessica Vitak Class time/details on ELMs TuTh 11:00am - 12:15pm	Seats (Total: 50) ONLINE ARC 1103
0103	SJ Terp Class time/details on ELMs Tu 2:00pm - 3:15pm	Seats (Total: 50) ONLINE PHY 1201
ESG1	Galina Madjaroff Class time/details on ELMs Tu 9:30am - 12:15pm	Seats (Total: 40) ONLINE ONLINE

INST377 **Dynamic Web Applications**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301); and minimum grade of C- in INST126, INST327, STAT100, MATH115, and PSYC100. Restriction: Must be in Information Science program. Credit only granted for: INST377 or BMGT406.

An exploration of the basic methods and tools for developing dynamic, database-driven websites, including acquiring, installing, and running web servers, database servers, and connectability applications.

0101	Alex Leitch TuTh 11:00am - 12:15pm	Seats (Total: 40) ONLINE
0102	Alex Leitch Class time/details on ELMs	Seats (Total: 50) ONLINE
0103	Alex Leitch Class time/details on ELMs	Seats (Total: 50) ONLINE

INST398A **Special Topics in Information Studies; Prototyping and Development Studio**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics in information studies.

0101	Caro Williams-Pierce Tu 3:30pm - 6:30pm	Seats (Total: 50) SYM 0200

INST398B **Special Topics in Information Studies; Technology Socialpreneur**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics in information studies.

The course will introduce students to the role of technology and entrepreneurship in our society. Students will be able to choose an existing society issue and develop creative entrepreneurial ideas to solve it using innovative technologies. The course will allow students to meet industry professionals and learn more about various social problems and projects companies focus on and try to solve in the modern world. Students will be able to contribute to those solutions.

ESG1	Ryan Elza Class time/details on ELMs *Restricted to students in the BSIS @ USG Program and the Technology Innovation Leadership minor*	Seats (Total: 40) ONLINE

INST402 **Designing Patient-Centered Technologies**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- from INST362 or INST367. Restriction: Must be in Technology and Information Design or Information Science programs.

Companies have created a vast array of apps and other technologies for understanding managing personal health and wellness, but many of them have been created with little understanding of audience needs or potential ethical issues. Course introduces students to the unique challenges of studying people's health and wellness needs as well as designing and evaluating technologies to meet those needs.

0101	Galina Madjaroff Class time/details on ELMs	Seats (Total: 50) ONLINE
ESG1	Galina Madjaroff Class time/details on ELMs Th 9:30am - 12:15pm	Seats (Total: 40) ONLINE ONLINE

INST408B **Special Topics in Information Science; Risk Management Leadership in the Information Age**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics in information science.

ESG1	Michael Prakhye Class time/details on ELMs *Restricted to students in the BSIS @ USG Program.*	Seats (Total: 40) ONLINE

INST408C **Special Topics in Information Science; Ethical Hacking**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics in information science.

0101	SJ Terp Th 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 50) CHM 2201 ONLINE

INST408J **Special Topics in Information Science; Game Design**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics in information science.

0101	Niklas Elmqvist	Seats (Total: 10)
	W 2:00pm - 4:45pm	JMP 2202

INST408K **Special Topics in Information Science; Competitive Business Intelligence**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics in information science.

ESG1	Ping Wang	Seats (Total: 50)
	Class time/details on ELMs	ONLINE
	Restricted to students in the BSIS @ USG Program.	

INST408M **Special Topics in Information Science; Managing with Data and Simulations**

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Selected topics in information science.

General principles of modeling, data analysis, and decision making methods. Approaches to evaluating and assessing effective concepts, methods, and procedures of modeling and data analysis for decision making in management, advocacy and communication situations. Ethical considerations in management, advocacy, and communication situations in professional life.

0101	Vedat Diker, Pamela Duffy	Seats (Total: 50)
	W 3:30pm - 4:45pm	BPS 1236
	F 3:30pm - 4:45pm	ONLINE

INST408P **Special Topics in Information Science; Introduction to Salesforce**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics in information science.

ESG1	Gavin Britto	Seats (Total: 40)
	Class time/details on ELMs	ONLINE
	Restricted to students in the BSIS @ USG Program.	

INST408Q **Special Topics in Information Science; Teaching and Learning in the Information Sciences**

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Selected topics in information science.

This course is intended to introduce students to the various ways that topics learned about as part of their InfoSci degree interact with teaching and learning. As part of the course students will be introduced to teaching and learning related careers for students with InfoSci degrees, explore implications of ideas from InfoSci on teaching and learning, and engage in hands-on projects related to the design of learning environments and foundational aspects of effective teaching.

0101	David Weintrop	Seats (Total: 50)
	TuTh 11:00am - 12:15pm	IRB 2207

INST408R **Special Topics in Information Science; Human-Centered Computing in a Global Context**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics in information science.

Prerequisites: 1 course with a minimum grade of C- from (INST201 or INST301), INST126, STAT100, MATH115, PSYC100 (Required) This course is jointly offered by two institutions: the College of Information Studies (iSchool) at UMD in the U.S., and the College of Computer Science at Fudan University in China. Students will learn existing theories and practices that outline the cultural differences regarding human users' expectations, practices, and problems of using technology to address social issues. Students from both universities will work in virtual groups to perform design projects together. Given the time difference between countries, students who register for this course should be up for group work at early-morning or late-night slots. INST362 or equivalent (Highly Recommended).

0101	Ge Gao	Seats (Total: 20)
	MW 11:00am - 12:15pm	HBK 0108

INST408Y **Special Topics in Information Science; Search Engines**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics in information science.

Design, implementation and application of search engines for unstructured content such as text, images video, and webpages. Topics include crawling, indexing, ranking using traditional and neural methods, and evaluation. Students will gain experience with applying information retrieval tools to specific tasks. Prerequisite: INST 326 or equivalent proficiency in Python.

0101	Douglas Oard MW 9:30am - 10:45am	Seats (Total: 25) ESJ 2309

INST414 **Data Science Techniques**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH115 (or higher) and STAT100; and a minimum grade of C- from INST126 or GEOG276; and a minimum grade of C- from one of the following (INST201, INST301, or BSOS233); and a minimum grade of C- from one of the following (AASP101, ANTH210, ANTH260, ECON200, ECON201, GEOG202, GVPT170, PSYC100, or SOCY100); and a minimum grade of C- from one of the following (ECON230, GEOG306, GVPT201, INST314, PSYC200, or SOCY201). Recommended: Minimum C- in MATH140 and (INST326, BSOS326, or GEOG376). Restriction: Must be in Information Science or Social Data Science program.

An exploration of how to extract insights from large-scale datasets. The course will cover the complete analytical funnel from data extraction and cleaning to data analysis and insights interpretation and visualization. The data analysis component will focus on techniques in both supervised and unsupervised learning to extract information from datasets. Topics will include clustering, classification, and regression techniques. Through homework assignments, a project, exams and in-class activities, students will practice working with these techniques and tools to extract relevant information from structured and unstructured data.

0102	Cody Buntain Class time/details on ELMs	Seats (Total: 50) ONLINE
0103	Abdirisak Mohamed Class time/details on ELMs	Seats (Total: 40) ONLINE
ESG1	William Farmer M 9:00am - 10:30am Class time/details on ELMs *Restricted to students in the BSIS @ USG Program.*	Seats (Total: 50) ONLINE ONLINE

INST441 **Information Ethics and Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in INST341 or PLCY380. Restriction: Must be in Technology and Information Design or Information Science programs.

Explores via case studies the legal, ethical, and technological challenges in developing and implementing policies for managing digital assets and information. Emphasizes access questions pertinent to managing sensitive information and the roles and responsibilities of information professionals.

0101	Ryan O'Grady Class time/details on ELMs	Seats (Total: 60) ONLINE

INST443 **Tools and Methods for Digital Curation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in INST341.

Introduces students to the application of digital tools and methods in a variety of organizational settings, academic disciplines, and economic sectors.

0101	Joseph Sherren Class time/details on ELMs TuTh 11:00am - 12:15pm	Seats (Total: 50) ONLINE ATL 1113

INST447 **Data Sources and Manipulation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in STAT100 and INST327; and a minimum grade of C- from one of the following (INST201, INST301, BSOS233); and a minimum grade of C- from one of the following (AASP101, ANTH210, ANTH260, ECON200, ECON201, GEOG202, GVPT170, PSYC100, or SOCY100); and a minimum grade of C- from one of the following (ECON230, GEOG306, GVPT201, INST314, PSYC200, or SOCY201); and a minimum grade of C- from one of the following (BSOS331, GEOG273, or INST326). Restriction: Must be in Information Science or Social Data Science program.

Examines approaches to locating, acquiring, manipulating, and disseminating data. Imperfection, biases, and other problems in data are examined, and methods for identifying and correcting such problems are introduced. The course covers other topics such as automated collection of large data sets, and extracting, transforming, and reformatting a variety of data and file types.

0101	Nekabari Sigalo Class time/details on ELMs	Seats (Total: 100) ONLINE
ESG1	Aditya Ravindra Bhat F 8:00am - 10:45am *Restricted to students in the BSIS @ USG Program.*	Seats (Total: 40) BLD4 2335

INST452 **Health Data Analytics**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum of a C- in INST201, MATH115, PSYC100, INST126, and STAT100. Restriction: Must be in the Information Science program.

Health data analytics involves the extrapolation of actionable insights from patient data, using data sources such as electronic health records (EHRs), claims data, surveillance data, and surveys. Health data is complex, often unstructured and incomplete, and is organized for clinical care rather than to meet analytic needs. This course will involve the use of various analytical methods in order to translate large and complex data, whether structured or unstructured, into insights that improve decision-making from both the patient and provider perspectives. Healthcare data are rich and hold so much potential, but a challenge is presented to patients, providers, and even government agencies when it comes to figuring out how to leverage these data. Students in this course will learn foundational topics in data analytics focused on health data and will apply this knowledge to real health datasets through hands-on labs integrated into the lectures.

0101	Nekabari Sigalo Tu 6:00pm - 8:45pm	Seats (Total: 40) ONLINE

INST462 **Introduction to Data Visualization**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in STAT100; minimum grade of a C- from one of the following (INST201, INST301, or BSOS233); minimum grade of C- in INST126 or GEOG276; a minimum grade of C- from one of the following (AASP101, ANTH210, ANTH260, ECON200, ECON201, GEOG202, GVPT170, PSYC100, or SOCY100); and a minimum grade of C- from one of the following (ECON230, GEOG306, GVPT201, INST314, PSYC100, or SOCY201). Restriction: Must be in Information Science or Social Data Science program.

Exploration of the theories, methods, and techniques of visualization of information, including the effects of human perception, the aesthetics of information design, the mechanics of visual display, and the semiotics of iconography.

0101	Eric Newburger Class time/details on ELMs	Seats (Total: 90) ONLINE
0102	Eric Newburger Class time/details on ELMs	Seats (Total: 90) ONLINE

0103	Jason Aston Class time/details on ELMs TuTh 3:30pm - 4:45pm	Seats (Total: 90) ONLINE CHE 2108

INST464 **Decision Making for Cybersecurity**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Must have earned a minimum grade of C- in INST201, INST126, MATH115, PSYC100, and INST364. Restriction: Must be in Information Science program. Credit only granted for: INST408W or INST464. Formerly: INST408W.

Discusses human and organizational decision making from a variety of perspectives. Applies different risk assessment and decision making frameworks that are relevant to personal and organization cybersecurity, with a focus on the quantitative Factor Analysis of Information Risk (FAIR) model. Considers monetary, social and societal costs of cybersecurity decisions. Considers a range of questions relating to cybersecurity, from whether to install a game on a smartphone to how to allocate scarce information security resources in an organization.

0101	SJ Terp TuTh 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 50) BPS 1236 ONLINE

INST466 **Technology, Culture, and Society**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

Prerequisite: Minimum grade of C- from INST201 or INST301; and minimum grade of C- from PSYC100 or SOCY105. Restriction: Must be in Technology and Information Design or Information Science programs.

Individual, cultural, and societal outcomes associated with development of information & communication technologies (ICTs), including pro- and anti-social factors. Unpacking how gender, race, ethnicity, sexual orientation, disabilities, and political affiliations affect consumption and production of online experiences. Unpacking how structures of dominance, power and privilege manifest at individual, institutional and cultural levels.

0101	Philip Piety MW 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 50) CCC 1111 ONLINE
0102	Francesca Polito Class time/details on ELMs	Seats (Total: 50) ONLINE

INST467 **Fundamentals of Cybersecurity for Policy Makers**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in INST126, INST201, INST364, MATH115, STAT100, and PSYC100. Restriction: Must be in Information Science program. Credit only granted for: INST408V, PLCY388C, or INST467. Formerly: INST408V.

Explores the key issues facing policy makers attempting to manage the problem of cybersecurity from its technical foundations to the domestic and international policy considerations surrounding governance, response, critical infrastructure risk management, and privacy. Designed for students with little to no background in information technology, and will provide the principles to understand the current debates shaping a rapidly evolving security landscape.

0101	Charles Harry MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 40) CHE 2108 CHE 2108	 Discussion
0102	Charles Harry MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 40) CHE 2108 CHE 2108	 Discussion

INST490 **Integrated Capstone for Information Science**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301); and minimum grade of C- in INST126, INST311, INST314, INST326, INST327, INST335, INST346, INST352, INST362, PSYC100, STAT100, and MATH115. Restriction: Must be in Information Science program; and permission of INFO-College of Information Studies.

The capstone provides a platform for Information Science students where they can apply a subset of the concepts, methods, and tools they learn as part of the Information Science program to addressing an information problem or fulfilling an information need.

0101	Timothy Rainsford Th 6:00pm - 8:45pm	Seats (Total: 50) ESJ 1215
0102	Andrew Fellows TuTh 3:30pm - 4:45pm	Seats (Total: 50) ESJ 0215
0103	Bill Kules MW 4:00pm - 5:15pm	Seats (Total: 50) ESJ 0215

0104	Tamara Clegg W 6:00pm - 8:45pm	Seats (Total: 50) ESJ 0215
0105	Katy Lawley Th 6:00pm - 8:45pm	Seats (Total: 50) ONLINE
ESG1	Mary Ann Francis W 9:00am - 11:45am *Restricted to students in the BSIS @ USG Program.*	Seats (Total: 50) BLD4 G201

INST604 **Introduction to Archives and Digital Curation**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC604 or LBSC605.

Overview of the principles, practices, and applications in the archival and digital curation fields.

IM01	Jason Baron Class time/details on ELMs	Seats (Total: 30) ONLINE

INST612 **Information Policy**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INST612 or LBSC625. Formerly: LBSC625.

Nature, structure, development and application of information policy. Interactions of social objectives, stakeholders, technology and other forces that shape policy decisions.

IM01	Paul Jaeger Class time/details on ELMs	Seats (Total: 30) ONLINE

INST614 **Literacy and Inclusion**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies.

The educational and psychological dimensions of helping and supporting new users to become information literate and experienced users to remain engaged.

IM01	Paul Jaeger	Seats (Total: 30)
	W 2:00pm - 4:45pm	HBK 0105

INST616 **Open Source Intelligence**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies.

An introduction to Open Source Intelligence (OSINT) for Information Professionals. For the purposes of this course, OSINT is defined as the use of free, publicly available online sources to gather information about people, organizations/groups, places, businesses, activities/events, and capabilities. Collected information is used to conduct analysis or reach conclusions with estimated level of certainty. Students will learn basic and advanced techniques for using search engines, people directories, social networks, location-based services, images and videos, public records, domain analytics, documents, archives, and other sources. Throughout the modules, data quality and validation procedures will be key topics. Professional applications of the skills taught are extensive and include libraries, law offices, journalism, human resources, competitive intelligence, law enforcement, opposition research, government agencies, ethical hacking, and many more.

An introduction to Open Source Intelligence (OSINT) for Information Professionals. For the purposes of this course, OSINT is defined as the use of free, publicly available online sources to gather information about people, organizations/groups, places, businesses, activities/events, and capabilities. Collected information is used to conduct analysis or reach conclusions with estimated level of certainty. Students will learn basic and advanced techniques for using search engines, people directories, social networks, location- based services, images and videos, public records, domain analytics, documents, archives, and other sources. Throughout the modules, data quality and validation procedures will be key topics. Professional applications of the skills taught are extensive and include libraries, law offices, journalism, human resources, competitive intelligence, law enforcement, opposition research, government agencies, ethical hacking, and many more.

IM01	Mary Ann Francis	Seats (Total: 30)
	Th 2:00pm - 4:45pm	HBK 0109

INST622 **Information and Universal Usability**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC622 OR INST622. Formerly: LBSC622.

Information services and technologies to provide equal experiences and outcomes to all users. Laws, standards, approaches, component concepts, access needs, and technologies in relation to physical and online information environments.

IM01	Eric Hung	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST639C **Practical Skills in HCI; Makerspace**

(Perm req)

Credits: 1 Grading Method: Sat-Fail, Audit

Current industry practice in the HCI and UX field involves being familiar with many practical skills and specialized software. In this repeatable course, HCIM students will be able to acquire some of these vital practical skills in order to be better prepared for joining industry upon graduation. Furthermore, this will also be an opportunity for students to develop their portfolio for future job hunts. Offered in both Fall and Spring semesters, the intention is for these "practical skills" to be taught by professional instructors with expert knowledge. The content of the course will vary from semester to semester, but here is a sample of topics: Graphic and visual design and communication; UX design and research in games; Voice and gestures; UX mockups and wireframing tools; Practical web design and technologies; UX project management software.

IM01	Alex Leitch	Seats (Total: 10)
	Th 4:00pm - 5:00pm	HBK 4105G

INST639G **Practical Skills in HCI; UX Strategy**

Credits: 1 Grading Method: Sat-Fail, Audit

Current industry practice in the HCI and UX field involves being familiar with many practical skills and specialized software. In this repeatable course, HCIM students will be able to acquire some of these vital practical skills in order to be better prepared for joining industry upon graduation. Furthermore, this will also be an opportunity for students to develop their portfolio for future job hunts. Offered in both Fall and Spring semesters, the intention is for these "practical skills" to be taught by professional instructors with expert knowledge. The content of the course will vary from semester to semester, but here is a sample of topics: Graphic and visual design and communication; UX design and research in games; Voice and gestures; UX mockups and wireframing tools; Practical web design and technologies; UX project management software.

Explore applications of business strategy and UX design that create innovative digital products and services to meet user needs, enhance an organization's value proposition, and advance its mission and goals.

IM01	Stacy Surla	Seats (Total: 15)
	Tu 11:00am - 11:50am	ONLINE

INST639J **Practical Skills in HCI; Seeing the Internet**

Credits: 1 Grading Method: Sat-Fail, Audit

Current industry practice in the HCI and UX field involves being familiar with many practical skills and specialized software. In this repeatable course, HCIM students will be able to acquire some of these vital practical skills in order to be better prepared for joining industry upon graduation. Furthermore, this will also be an opportunity for students to develop their portfolio for future job hunts. Offered in both Fall and Spring semesters, the intention is for these "practical skills" to be taught by professional instructors with expert knowledge. The content of the course will vary from semester to semester, but here is a sample of topics: Graphic and visual design and communication; UX design and research in games; Voice and gestures; UX mockups and wireframing tools; Practical web design and technologies; UX project management software.

Investigate how the physical reality of the Internet (coppe r cables, optical fiber, electromagnetic waves, computing devices) enables layers of hardware, software, and virtualization to build a system that increasingly connects humans and anything, anywhere, anytime. We will trace the physical and logical paths that Internet traffic takes. Through a combination of in-person and online experiences, we will learn" to see better the Internet around us" and to share models of, and stories about, how the Internet as a system works end-to-end.

IM01	Dennis Frezzo W 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 15) HBK 0302J ONLINE

INST639L **Practical Skills in HCI; Information Architecture**

Credits: 1 Grading Method: Sat-Fail, Audit

Current industry practice in the HCI and UX field involves being familiar with many practical skills and specialized software. In this repeatable course, HCIM students will be able to acquire some of these vital practical skills in order to be better prepared for joining industry upon graduation. Furthermore, this will also be an opportunity for students to develop their portfolio for future job hunts. Offered in both Fall and Spring semesters, the intention is for these "practical skills" to be taught by professional instructors with expert knowledge. The content of the course will vary from semester to semester, but here is a sample of topics: Graphic and visual design and communication; UX design and research in games; Voice and gestures; UX mockups and wireframing tools; Practical web design and technologies; UX project management software.

Formerly: INST639H (Summer 2021). Credit only granted for INST639L or INST639H (when taken in Summer 2021).

IM01	Stacy Surla Th 11:00am - 11:50am	Seats (Total: 15) ONLINE

INST644 **Introduction to Digital Humanities**

Credits: 3 Grading Method: Regular

Restriction: Permission of INFO-College of Information Studies.

A survey of the history, methods, and principal topics of the Digital Humanities, examined from theoretical and applied perspectives.

IM01	Kari Kraus	Seats (Total: 30)
	W 2:00pm - 4:45pm	PLS 1113

INST646 **Principles of Records and Information Management**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC680 OR INST646. Formerly: LBSC680.

Principles and practices of managing records in the context of information management programs in government, corporate and other institutional settings. Includes access; legal requirements; digital technologies; and creation, administration, appraisal, and retention and disposition of records.

IM01	Jason Baron	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST652 **Design Thinking and Youth**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies.

Methods of design thinking specifically within and for youth contexts, including user-centered design, understanding user needs, ideation, contextual design, participatory design, iterative prototyping, and visual design. These topics will specifically be studied in the context of designing with and for youth.

IM01	Mega Subramaniam	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST682 **Personal Health Informatics & Visualization**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Personal Health Informatics cover a broad concept that encompasses an array of approaches to collect, store, share, analyze, and reflect on personal health data. Not only health care providers are relying on Health Technologies to improve patient care, people are increasingly using health devices and apps in their everyday life. Individuals have started using new technologies to collect data, increase awareness, and reflect on and change their behaviors. They also use various tools for curiosity and fun. This course will provide an overview of this exciting field and examine how social and behavioral theories can be applied to create effective health applications.It is difficult to create health technologies that can successfully be integrated into people's daily life due to many obstacles in individuals' data collection, integration, self-reflection, and sharing practices. Understanding these challenges is an important part of designing Health Technologies. Therefore, this course will cover HCI and design thinking methods that you can leverage in understanding the adoption of Health Technologies. Moreover, visualizations facilitate people to gain insights from their data, so we will cover common visualization approaches used in the personal data contexts.

IM01	Christopher Bonk Tu 2:00pm - 4:45pm	Seats (Total: 30) HBK 0302H

INST702 **Advanced Usability Testing**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of instructor; or (INFM605 or INST631). Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INFM702 or INST702. Formerly: INFM702.

Usability test design, implementation and analysis for computer and mobile devices; special attention will be paid to remote testing. Students will learn the complex process of coordinating and facilitating a usability test and how to synthesize test data into reports appropriate for various audiences.

IM01	Rachel Yang M 2:00pm - 4:45pm	Seats (Total: 36) ESJ B0320
IM02	Howard Killam Th 2:00pm - 4:45pm	Seats (Total: 25) PLS 1158

INST703 **Visual Design Studio**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in the Human-Computer Interaction Master's program. Credit only granted for: INST728T or INST703. Formerly: INST728T.

This hands-on studio course will help students develop foundational visual skills related to user experience (UX) design. Students will explore methodologies and processes used in many of the industry's top creative environments and study the entire visual design skillset, including concept development, content creation, system design, and tools and process.

IM01	Jason Aston Tu 11:00am - 1:45pm	Seats (Total: 25) HBK 0302J
IM02	Jason Aston W 6:00pm - 8:45pm	Seats (Total: 25) HBK 0302J

INST705 **Game Design Studio**

Credits: 3 Grading Method: Regular, Audit

Recommended: Programming experience will be useful, but not strictly necessary. Credit only granted for: INST408J, INST608J or INST705. Formerly: INST608J.

Learn the fundamentals of game design by applying elements and principles of game design, such as goals, rules, and challenges, to create board games, card games, and digital games. Students will be introduced to the basic tools and methods of game design: paper and digital prototyping, design iteration, design critique, and user testing. Students will design several games of different types to add to a growing portfolio of game design concepts. Students will also learn how to use their skills to deconstruct and critique the components of existing games, as well as gain an understanding of the role of the game designer in real-world game development teams.

IM01	Niklas Elmqvist W 2:00pm - 4:45pm	Seats (Total: 25) JMP 2202

INST709 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Intensive individual study, reading, or research in an area of specialized interest under faculty supervision. Registration limited to the advanced student with the approval of the advisor and of the faculty member involved.

Contact department for information to register for this course.

INST710 **User Experience Research Methods**

Credits: 3 Grading Method: Regular, Sat-Fail

Students will learn to conduct user research in industry and to provide foundational knowledge needed for academic research. It examines the theoretical and epistemological differences between research paradigms and provides an overview of qualitative, quantitative and mixed-method approaches. It overviews user-centered design (UCD) methods, and uses Contextual Inquiry/Contextual Design as the backbone for a research project, incorporating related formative UCD methods and techniques. It is a project-based course, where students conduct a semester-long project to prepare them for the HCIM Capstone as well as other types of formative user research.

IM01	Wayne Lutters W 2:00pm - 4:45pm	Seats (Total: 30) HBK 0302J

INST711 **Interaction Design Studio**

Credits: 3 Grading Method: Regular, Audit

Covers basic interaction design principles and design process from a studio-based design perspective. Focuses on how to design for interactions that will resonate with your audiences: how the features and functions of a project get translated into something people find usable, useful, and desirable. Explores the role of interaction designers. Students design and prototype interactive products, systems, and services.

IM01	Alex Leitch Tu 2:00pm - 4:45pm	Seats (Total: 25) HBK 0302J
IM02	Laura Rogers Th 6:00pm - 8:45pm Th 6:00pm - 8:45pm	Seats (Total: 25) ONLINE HBK 2119

INST725 **Legal Research for Information Professionals**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: INST615. Restriction: Permission of INFO-College of Information Studies.

An in-depth exploration the methods, resources, and context of conducting advanced legal research. After offering an overview of various types of legal materials, the course will focus on finding and analyzing legal materials through various primary sources, databases, secondary sources, and public records for government and corporate settings. The course will also discuss practical issues of conducting legal research, such as data management and budgeting.

IM01	Jonathan Lazar M 2:00pm - 4:45pm	Seats (Total: 30) ONLINE

INST728G **Special Topics in Information Studies; Smart Cities and Urban Data Science**

Credits: 3 Grading Method: Regular, Audit

Selected topics in information studies.

Jointly offered with URSP688Y. Credit granted for URSP688Y or INST728G.

0101	Christopher Dempwolf Tu 4:00pm - 6:40pm	Seats (Total: 30) ARC 1105

INST728I **Special Topics in Information Studies; Museum Scholarship Practicum**

Credits: 1-3 Grading Method: Regular, Audit

Selected topics in information studies.

Prerequisite: AMST856, ANTH856, or HIST810. Restriction: Permission of Museum Scholarship Program required. Cross-listed with ANTH857, AMST857, and HIST811. Credit only granted for: AMST857, ANTH857, HIST811, or INST728I. Students devise and carry out a research program using the collections at the Smithsonian Institution or some other cooperating museum, working under joint supervision of a museum professional and a university faculty member.

0101	Paul Shackel Contact instructor or department for details.	Seats (Total: 2)
0301	Perla Guerrero Contact instructor or department for details.	Seats (Total: 2)
0401	Mary Sies Contact instructor or department for details.	Seats (Total: 4)
IM01	Paul Jaeger Contact instructor or department for details.	Seats (Total: 6)

INST728M **Special Topics in Information Studies; UX Business Basics**

Credits: 3 Grading Method: Regular, Audit

Selected topics in information studies.

Explore the business side of UX design and what it takes to successfully bring products to market and take a product from ideation through prototype of a minimum viable product (MVP) while also assessing risks and defining metrics for product success. Topics include project management, project scope, problem identification, market research, and how to effectively communicate research findings to various stakeholders and teams as well as presentation skills and building winning pitch decks for funding.

IM01	Francesca Polito Tu 6:00pm - 8:45pm	Seats (Total: 30) ONLINE	

INST728O **Special Topics in Information Studies; Science, Technology, and Society**

Credits: 3 Grading Method: Regular, Audit

Selected topics in information studies.

IM01	M Sauter W 2:00pm - 4:45pm	Seats (Total: 15) JMZ 2123	

INST728T **Special Topics in Information Studies; Introduction to Museum Scholarship**

Credits: 3 Grading Method: Regular, Audit

Selected topics in information studies.

Cross-listing with AMST655, ANTH655, and HIST610. Credit only granted for AMST655, ANTH655, HIST610 or INST728T.

0101	Lesley Langa Tu 4:00pm - 5:45pm Class time/details on ELMs	Seats (Total: 15) ONLINE ONLINE	 Discussion

INST728U **Special Topics in Information Studies; Museum Research Seminar**

Credits: 3 Grading Method: Regular, Audit

Selected topics in information studies.

Cross-listed with AMST856, ANTH856, and HIST810. Credit granted for AMST856, ANTH856, HIST810, or INST728U.

0101	Mary Sies	Seats (Total: 15)	
	W 4:00pm - 5:45pm	ONLINE	
	Class time/details on ELMs	ONLINE	Discussion

INST733 **Database Design**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: LBSC690, LBSC671, or INFM603; or permission of instructor. Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INST733 or LBSC793. Formerly: LBSC793.

Principles of user-oriented database design. Requirements analysis. Data modelling. Data integrity and security and multi-user databases. Implementing an information system using a database management system (DBMS).

IM01	Vedat Diker, Pamela Duffy	Seats (Total: 40)
	Th 2:00pm - 4:45pm	HBK 0302H

INST742 **Implementing Digital Curation**

Credits: 3 Grading Method: Regular

Prerequisite: INST604; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Management of and technology for application of digital curation principles in specific settings. Characteristics, representation, conversion, and preservation of digital objects. Application of standards for digitization, description, and preservation. Planning for sustainability, risk mitigation and disaster recovery.

IM01	Richard Marciano	Seats (Total: 30)
	Th 6:00pm - 8:45pm	ONLINE

INST747 **Research in Advanced Digital Curation**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: INST604; or permission of instructor. Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INST728L or INST747. Formerly: INST728L.

Students will build their ability to understand the complexity of research strategies and apply tools involved in the management and use of digital information in the Age of Big Data. The class will contain class lectures, class discussions, assigned readings, and extensive hands-on experience with student experience in digital curation projects. The research projects are focused around six major themes that will engage students in multiple arenas of research in Big Data. These are: community displacement, refugee narratives, movement of people, citizen internment, racial zoning, and cyberinfrastructure for digital curation. Project participants will have the opportunity to work with external stakeholders.

IM01	Richard Marciano	Seats (Total: 20)
	W 6:00pm - 8:45pm	HBK 0105

INST750 **Advanced Data Science**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: INFM603 and INST737; or permission of instructor. Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INFM750 OR INST750. Formerly: INFM750.

Application of data science techniques to unstructured, real-world datasets including social media and geo-referenced sources. Techniques and approaches to extract information relevant for experts and non-experts in areas that include smart cities, public health, and disaster management.

IM01	Vanessa Frias-Martinez	Seats (Total: 30)
	W 2:00pm - 4:45pm	HBK 4115

INST751 **IoT and Streaming Data Analytics**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: INFM603, INST733, or other programming and database courses, or Permission of the instructor.

An increasing number of sensors, actuators, Internet-connect instruments and apparatuses, smart devices, and systems are generating and broadcasting a wide variety of continuous data streams. Machine-generated structured data sources are joined by a myriad of unstructured data streams from social media, weather, and news sources, among others. Integrated into networks, these continuously-streaming devices (collectively referred to as the Internet of Things, or IoT) provide a fertile array of data sources that can be ingested and analyzed to inform and automate decision processes for numerous purposes including operational intelligence, process monitoring, optimization, risk management, personalization, and prediction in real time. This course looks at architectures and operational modes for streaming data sources and examine methods for descriptive analytics, creation of predictive models, and integrated deployment of these models via centralized and edge computing resources. We will discuss a variety of uses cases for streaming data analytics and how they are applied in different industries including public utilities, smart cities, manufacturing, telecommunications, and healthcare.

IM01	Evan Levy	Seats (Total: 40)	
	Class time/details on ELMs	ONLINE	

INST756 **Information Risk Management**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: INFM600; or permission of INFO-College of Information Studies.

Looks at information system threats, vulnerabilities, risk assessment and management. Explores how regulations scope and define what is considered to be protected information. Considers how data assets are assessed and classified in terms of their levels of sensitivity. Discusses specifying data protection policies and the techniques for enforcing compliance with those policies.

IM01	Ido Sivan-Sevilla	Seats (Total: 25)	
	Class time/details on ELMs	ONLINE	
	F 10:00am - 11:15am	ONLINE	Discussion

INST762 **Visual Analytics**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: INFM603, INST630, or JOUR652; or permission of instructor. Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INST728Q OR INST762. Formerly: INST728Q.

Visual analytics is the use of interactive visual interfaces to facilitate analytical reasoning. In essence, visual analytics is based on the--not uncontroversial--idea that humans and computers working alone are insufficient for the data challenges of today and tomorrow, and that effective synthesis of both humans and computational algorithms are needed to create human-in-the-loop systems. Thus, visual analytics bridges human-centered disciplines such as visualization and human-computer interaction with computation-centered disciplines such as machine learning, probabilistic methods, and knowledge discovery. The course contents will include both theoretical foundations of this interdisciplinary science as well as practical applications of integrated visual analysis techniques on real-world problems.

IM01	Jesse Klein Tu 2:00pm - 4:45pm	Seats (Total: 40) ONLINE

INST767 **Big Data Infrastructure**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: INST737; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Principles and techniques of data science and business intelligence. Technologies and architectures for large-scale data warehousing and scale-out data analytics platforms. Supervised and unsupervised data mining.

IM01	Naeemul Hassan W 4:00pm - 6:45pm	Seats (Total: 40) HBK 0302H
IM02	Wei Ai Class time/details on ELMs	Seats (Total: 30) ONLINE

INST771 **Foundations of Cybersecurity**

Credits: 3 Grading Method: Regular, Audit

Explores the foundational concepts of cybersecurity including the Threat Landscape, the evolution and structures of the global telecommunications network, key communication protocols and foundations of networks, the history, culture and emergence of the hacking process, and the core motivations and tactics of threat actors.

IM01	Ido Sivan-Sevilla Class time/details on ELMs F 12:00pm - 1:00pm	Seats (Total: 40) ONLINE ONLINE

INST776 **HCIM CAPSTONE PROJECT**

Credits: 3 Grading Method: Regular

Prerequisite: INST775; or permission of instructor. Restriction: Must be taken in the semester immediately following completion of INST775 HCIM Capstone Prep; and permission of INFO-College of Information Studies.

The opportunity to apply the skills learned through coursework in a semester-long project applied to a real -world problem. Capstone projects may follow the design, prototyping and evaluation process from end-to-end or may focus on a subset of elements in that process, such as formative study and design.

IM01	Wayne Lutters M 2:00pm - 4:45pm Th 5:00pm - 7:45pm	Seats (Total: 30) HBK 0302J HBK 0302J
IM02	Bill Kules W 1:00pm - 3:45pm Th 2:00pm - 4:45pm	Seats (Total: 30) HBK 2119 HBK 0302J

INST779 Readings Seminar

Credits: 1 Grading Method: Regular, Sat-Fail

Readings in emerging topics. Through readings and discussion the class will critically assess future directions and highlight intersection points with other disciplines (e.g., medicine) and sub-disciplines of information studies and computer science (e.g., information retrieval, computer vision, machine learning). One or more themes will be covered over the semester (e.g., inclusive design, health informatics, environmental sustainability, social networking) and will be chosen based on instructor and student interest.

IM01	Eun Kyoung Choe W 11:00am - 11:50am *HCI Seminar on Making Data Accessible.*	Seats (Total: 5) ONLINE
IM02	Amanda Lazar Tu 3:00pm - 3:50pm Class time/details on ELMs *Ways of thinking in Human-Computer Interaction.*	Seats (Total: 5) Location: TBA ONLINE

INST785 Documentation, Collection, and Appraisal of Records

Credits: 3 Grading Method: Regular, Audit

Prerequisite: INST604; or permission of instructor. Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC785 OR INST785. Formerly: LBSC785.

Development of documentation strategies and plans; collecting policies to guide programs in acquiring records; theories and techniques for appraising records to identify those with continuing value.

IM01	Eric Hung Th 6:00pm - 8:45pm	Seats (Total: 30) HBK 0105

INST799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

INST808 **Seminar in Research Methods and Data Analysis**

Credits: 3 Grading Method: Regular, Audit

Topics and issues in information studies research. Design and conduct of research project.

Focuses on experimental and quasi-experimental methods, particularly for behavioral and social aspects of technology and information topics. This course will include study design, data collection, and some initial ways to analyze quantitative data. Students will design a study on a topic of their choice.

0101	Susannah Paletz W 2:00pm - 4:45pm *Focus on experimental and quasi-experimental methods, including study design and data collection.*	Seats (Total: 20) HBK 1108
0102	Eun Kyoung Choe Class time/details on ELMs Tu 12:00pm - 1:30pm *Data Collection In-Situ: Diary Studies and Experience Sampling Method*	Seats (Total: 20) ONLINE ONLINE

INST809 **Individualized Teaching Experience**

(Perm req)

Credits: 3-5 Grading Method: Regular, Audit

Introduction to the techniques and challenges associated with design, delivery, and evaluation of couses offered at the University level. The doctoral student will work one-on-one with a faculty member in the development and co-teaching of a graduate level course.

0201	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0261	David Weintrop Contact instructor or department for details.	Seats (Total: 5)
0301	Brian Butler Contact instructor or department for details.	Seats (Total: 3)
0401	Michael Kurtz Contact instructor or department for details.	Seats (Total: 3)
0501	Amanda Lazar Contact instructor or department for details.	Seats (Total: 5)
0601	Vedat Diker Contact instructor or department for details.	Seats (Total: 5)
0701	Kenneth Heger Contact instructor or department for details.	Seats (Total: 5)
0801	Douglas Oard Contact instructor or department for details.	Seats (Total: 5)
0901	Ricardo Punzalan Contact instructor or department for details.	Seats (Total: 3)
1101	Paul Jaeger Contact instructor or department for details.	Seats (Total: 5)
1301	Jennifer Golbeck Contact instructor or department for details.	Seats (Total: 5)
1401	Kari Kraus Contact instructor or department for details.	Seats (Total: 5)
1501	Beth St Jean Contact instructor or department for details.	Seats (Total: 5)
1601	Vanessa Frias-Martinez Contact instructor or department for details.	Seats (Total: 5)
1701	John Bertot Contact instructor or department for details.	Seats (Total: 4)

1801	Ping Wang Contact instructor or department for details.	Seats (Total: 5)
1901	Kathy Weaver Contact instructor or department for details.	Seats (Total: 5)
2001	Katy Lawley Contact instructor or department for details.	Seats (Total: 5)
2101	Katie Shilton Contact instructor or department for details.	Seats (Total: 5)
2201	Leah Findlater Contact instructor or department for details.	Seats (Total: 5)
2401	Jessica Vitak Contact instructor or department for details.	Seats (Total: 5)
2501	Taverekere Srikantaiah Contact instructor or department for details.	Seats (Total: 5)
2601	Niklas Elmqvist Contact instructor or department for details.	Seats (Total: 5)
2701	Mega Subramaniam Contact instructor or department for details.	Seats (Total: 3)
2901	Susan Winter Contact instructor or department for details.	Seats (Total: 5)
3001	Richard Marciano Contact instructor or department for details.	Seats (Total: 5)
3101	Yla Tausczik Contact instructor or department for details.	Seats (Total: 5)
4301	Ursula Gorham-Oscilowski Contact instructor or department for details.	Seats (Total: 5)
4501	Tamara Clegg Contact instructor or department for details.	Seats (Total: 5)
5519	Caro Williams-Pierce Contact instructor or department for details.	Seats (Total: 5)

INST818 **Individual Research Experience**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Pre-candidacy individual research experience directed by a faculty member.

0166	Jennifer Golbeck Contact instructor or department for details.	Seats (Total: 5)
0173	Naeemul Hassan Contact instructor or department for details.	Seats (Total: 5)
0197	Amanda Lazar Contact instructor or department for details.	Seats (Total: 5)
0236	M Sauter Contact instructor or department for details.	Seats (Total: 5)
0280	Cody Buntain Contact instructor or department for details.	Seats (Total: 5)

INST828 **Readings Seminar**

Credits: 1 Grading Method: Regular, Audit

Readings in emerging topics. Through readings and discussion the class will critically assess future directions and highlight intersection points with other disciplines (e.g., medicine) and sub-disciplines of information studies and computer science (e.g., information retrieval, computer vision, machine learning). One or more themes will be covered over the semester (e.g., inclusive design, health informatics, environmental sustainability, social networking) and will be chosen based on instructor and student interest.

0101	Eun Kyoung Choe W 11:00am - 11:50am *HCI Seminar on Making Data Accessible.*	Seats (Total: 5) ONLINE
0102	Amanda Lazar Tu 3:00pm - 3:50pm Class time/details on ELMs *Ways of Thinking in Human-Computer Interaction.*	Seats (Total: 5) KEY 0117 ONLINE

INST878O **Special Topics in Information Studies; Science, Technology, and Society**

Credits: 3 Grading Method: Regular, Audit

Seminar topics offered as faculty and student interests warrant. Topic varies.

0101	M Sauter W 2:00pm - 4:45pm	Seats (Total: 10) JMZ 2123

INST888 **Doctoral Seminar**

Credits: 3 Grading Method: Regular, Audit

Advanced seminar on selected topics in information studies.

0101	Joel Chan M 6:00pm - 8:45pm M 6:00pm - 8:45pm	Seats (Total: 40) ONLINE ATL 1114

INST898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

INST899 **Doctoral Dissertation Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ISRL Israel Studies Spring 2022

ISRL249B **Selected Topics in Israel Studies; Written and Oral Storytelling in the Jewish Tradition**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics in the study of Zionism and contemporary Israel from the 1880's to the present. Future offerings may address history, politics, or culture.

Crosslisted with TDPS258W and JWST219F. Credit only granted for ISRL249B, TDPS258W, or JWST219F. This course will focus on the evolution of the role of the story-teller as a mediator between fiction and truth, with some emphasis on Jewish and Israeli literature. Students will read and analyze short stories in the first part of the course, and then create a workshop in which they will present their own.

0101	Yael Inbar	Seats (Total: 15)
	TuTh 11:30am - 12:45pm	PAC 2740

ISRL329K **Jewry of Muscle: Zionism and Jewish Masculinity**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Cross-listed with: ISRL372. Credit only granted for: JWST319K, ISRL329K, JWST372 or ISRL372. Formerly: JWST319K or ISRL329K.

Part of the Zionist cultural project involved creating a new Jewish masculinity that would replace the diasporic "sissy Jew" with a strong, healthy new "Jewry of Muscle." Using literary and cinematic sources, we will analyze how these Zionist and Israeli cultural productions served to build (and sometimes undermine) this new model of Jewish masculinity.

Cross-listed with JWST319K. Credit only granted for JWST319K or ISRL329K. Part of the Zionist cultural project involved creating a new Jewish masculinity that would replace the diasporic "sissy Jew" with a strong, healthy new "Jewry of Muscle." Using literary and cinematic sources, we will analyze how these Zionist and Israeli cultural productions served to build (and sometimes undermine) this new model of Jewish masculinity.

0101	Shirelle Doughty	Seats (Total: 43)
	Class time/details on ELMs	ONLINE

ISRL329Q **Special Topics in Israel Studies; Political Psychology, Israel, and the Middle East**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Topics in the study of Zionism and contemporary Israel from the 1880's to the present at an intermediate level. Individual sections may address history, politics, or culture.

Cross-listed with GVPT368P. Credit only granted for ISRL329Q or GVPT368P. What is the role of perceptions and misperceptions in international politics? How do emotions impact policy making processes? Does social psychology matter when analyzing domestic politics or foreign policy? Political psychology is an interdisciplinary academic field dedicated tothe analysis of the nexus between psychological and political processes. This course will identify and employ multiple pertinent political psychology theories to account for Israeli domestic politics and foreign policy as well as other major political events throughout the Middle East.

0101	Ilai Saltzman	Seats (Total: 35)
	TuTh 3:00pm - 4:15pm	JMP 1202

ISRL329R **Special Topics in Israel Studies; Object Theatre and Peep Shows**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics in the study of Zionism and contemporary Israel from the 1880's to the present at an intermediate level. Individual sections may address history, politics, or culture.

Cross-listed with TDPS458R. Credit only granted for TDPS458R or ISRL329R. Student must pay a $25 course fee. This course will focus on the evolvement of the story-teller role as a mediator between fiction and truth, especially in the Jewish and Israeli literature. It will be divided into a theoretical part followed by a practical part. In the theoretical part we will read and analyze a short story per week. In the practical part we will identify various approaches, traditional and modern, to story-telling in which the students will practice presenting short stories.

5501	Yael Inbar	Seats (Total: 15)
	TuTh 9:30am - 11:20am	PAC 2740

ISRL329T **Special Topics in Israel Studies; The Politics of the Past: Contemporary Israel and the Study of Archaeology**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics in the study of Zionism and contemporary Israel from the 1880's to the present at an intermediate level. Individual sections may address history, politics, or culture.

Cross-listing with ANTH329T. Credit only granted for ISRL329T or ANTH329T. Archaeology is not just the study of the past. It is a story of people long forgotten. Over the last 150 years, archaeology in Israel has gone from being a quest to determine the historical accuracy of the Bible to a mission to establish Israel s national identity and in the process, justify West Bank settlements, and support a multi-million-dollar industry in religious tourism. Archaeological discoveries in Israel make international news, but, at home, they are often celebrated as the ultimate proof of primacy in the land. Close attention to archaeological discoveries in light of present-day politics and culture provides an opportunity to think deeply about contemporary Israeli politics, identity, and society.

0101	Sandra Scham	Seats (Total: 35)
	MW 2:00pm - 3:15pm	SQH 1103

ISRL349F **Investigating Topics in Israel Studies; U.S. Foreign Policy and the Arab-Israeli Conflict**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics in the study of Zionism and contemporary Israel from the 1880's to the present at an intermediate level. Individual sections may address history, politics, or culture.

Cross-listed with GVPT368A. Credit only granted for ISRL349F or GVPT368A. Students who attended the course "The United States and Israel: Likely or Unlikely Allies?" (ISRL329N or GVPT368B) may not enroll in this course. What are the U.S. interests in the Middle East? Who and what defines these interests, or how to pursue them diplomatically and militarily? The Arab/Palestinian-Israeli conflict is a defining feature of the modern Middle East and it unquestionably has a significant impact on U.S. domestic politics and international leadership. Given those realities, this course will examine how U.S. foreign and security affecting the Arab/Palestinian-Israeli conflict is made and how it shapes and determines the realities on the ground, as well as the prospects for its peaceful resolution.

0101	Ilai Saltzman	Seats (Total: 35)
	TuTh 11:00am - 12:15pm	PLS 1113

ISRL349G **Investigating Topics in Israel Studies; Tzahal: The Israeli Military in State, Society, and its Middle Eastern Context**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics in the study of Zionism and contemporary Israel from the 1880's to the present at an intermediate level. Individual sections may address history, politics, or culture.

Cross-listed with GVPT368F. Credit only granted for ISRL349G or GVPT368F. This course offers an introduction to general concepts of civil- military relations with a strong focus on the Israeli case. Situating Israel within the Middle East context, the course readings and class discussions will include comparative references to major regional players, such as Egypt, Turkey, Iran, and the Arab Gulf States. The military is a salient feature of all Middle Eastern states; we will explore how Israel both resembles and differs from other states in the region regarding the role of its military and of civil-military relations.

0101	Marwa Maziad	Seats (Total: 35)
	TuTh 10:00am - 11:15am	ONLINE

ISRL369C **Special Topics in Study Abroad; Israeli Society in Israeli Cinema**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ISRL369I **Special Topics in Study Abroad; Socio-Economic, Political, Religious, and Ethnic Conflicts in Israel, and the Search For Common Ground**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ISRL448B **Seminar in Israel Studies; Media, Culture, and Society in Israel**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Intensive study of an Israel Studies topic. Expected work product is a substantial research or analysis paper or appropriate equivalent.

This is a Global Classrooms course, developed in partnership with the Office of International Affairs (OIA) to provide virtual opportunities for global engagement. Global Classrooms can range from embedded experiences to immersive, project-based collaboration. Learn more about Global Classrooms: go.umd.edu/gc-umd. This will be taught asynchronous with four synchronous sessions to be held in conjunction with the Ashkelon Academic University in Israel on the following dates: March 29, April 5, April 26, May 10. All session at 11:00am-12:15pm. Cross-listed with COMM498D. Credit only granted for ISRL448B or COMM498D. This course acquaints students with the historical development of media in Israel, from its former monopolistic structure towards its current highly competitive, fragmented system. We will discuss issues unique to Israel's media environment, including the media's role in nation-building, collective memory, social integration, public diplomacy, and intercultural communication.

0102	Elie Friedman Class time/details on ELMs	Seats (Total: 35) ONLINE

ITAL Italian Spring 2022

Students with no experience in the language are invited to register for ITAL103.

ITAL103 **Intensive Elementary Italian**

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Not open to fluent/native speakers of Italian. Credit only granted for: ITAL103 or ITAL121.

Covers speaking, reading, writing, listening, and culture of Italian-speaking world.

0101	Alessandra Gavagni TuTh 9:30am - 10:45am W 10:00am - 10:50am	Seats (Total: 15) JMZ 1215 JMZ 1215
0201	Alessandra Gavagni TuTh 11:00am - 12:15pm W 11:00am - 11:50am	Seats (Total: 15) JMZ 0120 JMZ 1215

0301	Valeria Federici	Seats (Total: 15)
	MW 2:00pm - 3:15pm	JMZ 1215
	F 2:00pm - 2:50pm	JMZ 1215

ITAL121 **Accelerated Italian I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have appropriate Foreign Language Placement Test (FLPT) score. Credit only granted for: ITAL103 or ITAL121.

An intensive beginning course in Italian language skills: guided practice in reading, writing, understanding and conversation, to enable the student to move more quickly to advanced courses. Restricted to students already having a good background in at least one other foreign language. When taken with ITAL122, may be used to satisfy language requirement.

Contact department for information to register for this course.

ITAL122 **Accelerated Italian II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO

Prerequisite: ITAL121; or must have appropriate Foreign Language Placement Test (FLPT) score. Credit only granted for: ITAL203 or ITAL122.

Continuation of ITAL121. Completion of accelerated cycle. May be used to satisfyARHU Global Engagement requirement.

Cross-listed with ITAL122H. Credit granted for ITAL122 or ITAL122H.

Contact department for information to register for this course.

ITAL122H **Accelerated Italian II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO

Prerequisite: ITAL121; or must have appropriate Foreign Language Placement Test (FLPT) score. Credit only granted for: ITAL203 or ITAL122.

Continuation of ITAL121. Completion of accelerated cycle. May be used to satisfyARHU Global Engagement requirement.

For general honors students only. Cross-listed with ITAL122. Credit granted ro ITAL122 or ITAL122H.

Contact department for information to register for this course.

ITAL169B **Special Topics in Study Abroad I; Intensive Elementary Italian**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL169C **Special Topics in Study Abroad I; Italian Conversation**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL169E **Special Topics in Study Abroad I; Elementary Italian I**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL169F **Special Topics in Study Abroad I; The Florence Experience I: Beginning Italian I**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL169R **Special Topics in Study Abroad I; Introduction to Italian Language and Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL203 **Intensive Intermediate Italian**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit CORE: HO

Prerequisite: ITAL103; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not have completed ITAL122; and must not be a fluent/native speaker of Italian. Credit only granted for: ITAL203 or ITAL122.

Covers speaking, reading, writing, listening, and culture of Italian-speaking world.

0101	Alessandra Gavagni TuTh 2:00pm - 3:15pm W 2:00pm - 2:50pm	Seats (Total: 25) JMZ 3205 JMZ 0122
0201	Joseph Falvo MW 2:00pm - 3:15pm F 2:00pm - 2:50pm	Seats (Total: 25) JMZ 0208 JMZ 0208

ITAL204 **Advanced Intermediate Italian**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO

Prerequisite: ITAL203 or equivalent; or must have appropriate Foreign Language Placement Test (FLPT) score.

An intensive study of Italian language and culture. This course completes the sequence of ITAL 103 and 203. After a brief review of important material of Intermediate Italian (ITAL 203), we will cover the last four chapters of Parliamo italiano (Unita 9-12). ITAL 204 is designed to reinforce and deepen the students' knowledge of Italian and its idiomatic usage, and to improve their reading and writing skills through a more in-depth study of more complex grammatical forms. Students are encouraged to practice Italian using grammatical concepts in an active manner. There will be oral and written exercises, short readings, and vocabulary expansion. Special attention will be given to readings, oral comprehension and written compositions. To improve their listening and reading comprehension, students will also view and analyze film clips, and read short articles in newspapers and magazines on current events and global issues pertaining to Italy and the European Union.

0101	Alessandra Gavagni TuTh 3:30pm - 4:45pm	Seats (Total: 20) JMZ 2120

ITAL207 **Speaking and Writing in Italian**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Prerequisite: ITAL204; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a fluent/native speaker of Italian.

An intensive upper intermediate language course that focuses on Italian speaking and writing. The course, which is taught entirely in Italian, is designed to reinforce and deepen the students' knowledge of the Italian language and its idiomatic usage, and to improve their speaking ability and listening comprehension. Students will be given practice both in speaking extemporaneously and giving oral reports written on a wide range of topics dealing with contemporary Italy. One of the main objectives of the course is to prepare students to take upper level courses (300-400 levels) in Italian language, literature, and culture

Contact department for information to register for this course.

ITAL252 **Stories of Italy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ITAL207; or permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Must not be a fluent/native speaker of Italian.

Introduction to fictions across time and space in Italy.

0101	Valeria Federici	Seats (Total: 15)
	MWF 1:00pm - 1:50pm	JMZ 1117

ITAL269D **Special Topics in Study Abroad II; Advanced Italian**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL269I **Special Topics in Study Abroad II; Intensive Intermediate Italian I**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL269R **Special Topics in Study Abroad II; Elementary Italian I**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL269T **Special Topics in Study Abroad II; Intermediate Italian II**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL301 **Italian Composition**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ITAL207; or students who have taken courses with comparable content may contact the department.

Techniques of composition; grammatical analysis; various genres; vocabulary.

Contact department for information to register for this course.

ITAL311 **Advanced Oral Expression: Current Events**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ITAL207; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Oral expression; development of idiomatic forms and vocabulary to level of the Italian press.

0101	Valeria Federici	Seats (Total: 15)
	MWF 11:00am - 11:50am	JMZ 2120

ITAL362 **Survey of Italian Society and Culture: From the 1980s to thePresent Day**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ITAL207; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Development of Italian society and culture from the 1980s to the present. Literature, cinema, economy, popular culture, daily life. Taught in Italian.

Contact department for information to register for this course.

ITAL369C **Special Topics in Study Abroad III; History of Fashion**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL369W **Special Topics in Study Abroad III; Composition and Style**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Must have a Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Restriction: Junior standing or higher.

Contact department for information to register for this course.

ITAL399 **Directed Study in Italian**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Intended for undergraduates who wish to work on an individual basis with a professor of their choice.

Contact department for information to register for this course.

ITAL399T **Directed Study in Italian; Italian Tutoring**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Intended for undergraduates who wish to work on an individual basis with a professor of their choice.

0101	Alessandra Gavagni	Seats (Total: 1)
	Contact instructor or department for details.	

ITAL421 **The Italian Renaissance**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: ITAL421 or ITAL422.

A study of major trends of thought in Renaissance literature, art, and science. Taught in English.

0101	Joseph Falvo	Seats (Total: 25)
	MWF 1:00pm - 1:50pm	JMZ 0205

ITAL431 **Italian Civilization in Translation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: ITAL431 or ITAL432.

Political, social, intellectual, literary and artistic forces shaping contemporary Italy from the late Middle Ages to the present. Taught in English.

Contact department for information to register for this course.

ITAL436 **Italian Cinema I: Neorealism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: CINE441. Credit only granted for: CINE441, FILM441 or ITAL436. Formerly: FILM441.

Explores representations of Italy in cinema with special focus on identity formation and the movement of Italian neorealism and post neorealism. Taught in English.

Contact department for information to register for this course.

ITAL475 **The Italian Opera Libretto in English**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed one course in literature. Credit only granted for: ITAL475 or ITAL476.

History and analysis of Italian opera librettos from Monteverdi through Mozart to Verdi and Puccini. Taught in English.

Cross-listed with MUSC448L. Credit will be granted for ITAL475 or MUSC44 8 L.

Contact department for information to register for this course.

ITAL478R **Colloquium in Italian; Italian Renaissance**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Colloquium section taught in Italian to accompany 400-level Italian courses taught in English. Discussion, presentations, readings.

Co-requisite: ITAL421. Colloquium section taught in Italian to accompany 400-level Italian courses taught in English.

0101	Joseph Falvo	Seats (Total: 5)
	Contact instructor or department for details.	

ITAL499 **Special Topics in Italian Studies**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

JAPN Japanese Spring 2022

JAPN102 **Elementary Japanese II**

Credits: 6 Grading Method: Regular

Prerequisite: Minimum grade of C- in JAPN101; or appropriate Foreign Language Placement Test (FLPT) score.

Continued introduction to the basic spoken patterns of contemporary Japanese.

0101	Makiko Inoue, Takehiro Iizuka MWF 10:00am - 10:50am TuTh 9:30am - 10:45am	Seats (Total: 15) JMZ 2117 JMZ 2117
0201	Makiko Inoue, Takehiro Iizuka MWF 11:00am - 11:50am TuTh 11:00am - 12:15pm	Seats (Total: 15) JMZ 2117 JMZ 2117
0301	Makiko Inoue, Takehiro Iizuka MWF 2:00pm - 2:50pm TuTh 2:00pm - 3:15pm	Seats (Total: 15) JMZ 2117 JMZ 2117

JAPN202 **Intermediate Japanese II**

Credits: 6 Grading Method: Regular CORE: HO

Prerequisite: Minimum grade of C- in JAPN201; or appropriate Foreign Language Placement Test (FLPT) score.

Contemporary spoken and written Japanese.

0101	Kumiko Akikawa MWF 11:00am - 12:50pm	Seats (Total: 15) JMZ 1124
0201	Kumiko Akikawa MWF 1:00pm - 2:50pm	Seats (Total: 15) JMZ 1124

JAPN302 **Advanced Japanese II**

Credits: 6 Grading Method: Regular

Prerequisite: Minimum grade of C- in JAPN301; or permission of instructor.

Continued readings in varied modern texts and advanced conversation and oral comprehension.

0101	Mari Prendergast MWF 10:00am - 11:50am	Seats (Total: 15) JMZ 1103
0201	Mari Prendergast MWF 12:00pm - 1:50pm	Seats (Total: 15) JMZ 1103

JAPN386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular

Prerequisite: Must have a Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Restriction: Junior standing or higher.

Contact department for information to register for this course.

JAPN402 **Readings in Japanese Cultural Studies**

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in JAPN302; or permission of instructor.

Development of advanced reading, vocabulary, grammar, and translation skills through selected readings in Japanese drawn from the fields of history, social sciences, cultural studies, film studies, and popular culture.

0101	Jyana Browne TuTh 11:00am - 12:15pm	Seats (Total: 15) JMZ 2125

JAPN407 **The Art of Translation**

Credits: 3 Grading Method: Regular

Prerequisite: 1 course with a minimum grade of C- from (JAPN401, JAPN402); or students who have taken courses with comparable content may contact the department.

Theory and practice of translation. Variety of genres. Japanese to English.

Contact department for information to register for this course.

JAPN438P **Topics in Japanese Pragmatics; Speech Acts and Politeness**

(Perm req)

Credits: 3 Grading Method: Regular

Basic concepts in the field of pragmatics (the study of language in context) such as deixis and indexicality, speech acts, ellipsis, and politeness. Readings in English on English and Japanese examples.

Prerequisite: JAPN201 with a C- or better. This seminar familiarizes students with fundamental topics in the field of linguistic pragmatics (the study of language use in context) such as deixis and indexicality, reference and inference, speech act theory, and (im)politeness. Readings, class discussions, and homework assignments will initially introduce basic concepts through English examples, and then apply them to Japanese. (All readings are in English; many readings will have illustrative examples in romanized Japanese.) As students develop an understanding of these concepts, we will also discuss a range of speech acts (e.g., apologies, requests, invitations, and refusals) and their realizations in Japanese. Special attention will be paid to situational variables that can impact interlocutors' selection and interpretation of speech act realizations and communication more generally.

0101	Lindsay Yotsukura	Seats (Total: 15)
	MW 2:00pm - 3:15pm	JMZ 1103

JAPN445 **Performance and Sexuality in Early Modern Japan**

Credits: 3 Grading Method: Regular

Credit only granted for: JAPN498J or JAPN445. Formerly: JAPN498J.

Explores the intersections between performance and sexuality in early modern Japan. Our main sites will be the stage, the brothels, and everyday life as we examine how people of the period performed gender and sexuality. We will draw from popular fiction, kabuki, puppet theatre, woodblock prints, guides to the pleasure quarters, and censorship edicts. Taught in English.

Cross-listing with THET428J. Credit granted for JAPN445, THET428J, or JAPN498J.

0101	Jyana Browne	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	JMZ 2206

JAPN498N **Special Topics in Japanese Studies; Nuclear Nationalism and Its Discontents: Japan and Beyond**

Credits: 3 Grading Method: Regular

Special topics in Japanese studies. Taught in English.

The 2011 nuclear meltdowns at Japan s Fukushima Daiichi Power Plant-precipitated by a colossal earthquake and tsunami captured the world s attention as contaminated water escaped into the Pacific Ocean and man-made radioactive isotopes were caught up in global air flows. An atomic disaster rivaling Chernobyl, "Fukushima" has invited questions about why the only nation that has been attacked by atomic weapons during wartime so willingly adopted nuclear power. This Cultural Studies course not only critically investigates the historical trajectory of nuclear power in postwar Japan but also engages with diverse messages of artists who address nuclear power generally or Fukushima particularly in speculative fiction, poetry, cinema, manga, music, and more. We will also study issues of nuclear power in the Korean peninsula and more broadly in Asia.

0101	Michele Mason	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	JMZ 2206

JAPN499 **Directed Study in Japanese**

(Perm req)

Credits: 1-3 Grading Method: Regular

Contact department for information to register for this course.

JOUR Journalism Spring 2022

JOUR130 **Self-Presentation in the Age of YouTube**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSOC

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130 or THET285.
Additional information: May not count toward the Journalism major.

Students, as they make use of evolving technologies, need to be able to present themselves effectively in front of any number of different audiences through any number of different outlets. Whether in an interview on radio, a guest presentation at a conference, in comments on a video blog, in commentary on TV, in the lead on a self-produced YouTube video, or as spokesperson in front of investors or management, professionals need strong oral communication skills. This class focuses on strengthening those skills through active individual and group presentations, as well as, through discussion of key techniques and group critique of presentation publicly available in the social media space on sites such as YouTube.

0201	Hamil Harris	Seats (Total: 22)
	TuTh 5:30pm - 6:45pm	KNI 1206

JOUR150 **Introduction to Mass Communication**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB General Education: DSHS, DSSP

Additional information: Not applicable toward journalism major.

Survey of the functions and effects of the mass media in the United States. A consumer's introduction to newspapers, television, radio, film, sound recording, books, magazines, and new media technology.

0101	Edward Alwood TuTh 11:00am - 12:15pm	Seats (Total: 30) KNI 3202
0201	Edward Alwood TuTh 12:30pm - 1:45pm	Seats (Total: 30) KNI 3202
0301	Denitsa Yotova Class time/details on ELMs	Seats (Total: 35) ONLINE
0501	Md Haque TuTh 2:00pm - 3:15pm	Seats (Total: 30) KNI 1103

JOUR152 **Introduction to Storytelling with Code**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in JOUR200.

An introduction to the ways markup and programming languages and computational thinking are transforming news reporting and storytelling.

0201	Naeemul Hassan **Meets January 24, 2022 - March 12, 2022** F 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 100) ONLINE ONLINE

JOUR175 **Media Literacy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: IE, D General Education: DSSP, DVUP

Additional information: Not applicable toward journalism major.

An analysis of the information, values and underlying messages conveyed via television, newspapers, the internet, magazines, radio and film. Examines the accuracy of those messages and explores how media shape views of politics, culture and society.

0101	Susan Moeller	Seats (Total: 80)
	Class time/details on ELMs	ONLINE
	Synchronous online meetings 1/25 from 6:30-8pm EST, 3/1 from 6:30-8pm EST, 4/5 from 6:30-8pm EST and 5/3 from 6:30-8pm EST.	
0501	Susan Moeller	Seats (Total: 80)
	Class time/details on ELMs	ONLINE
	Synchronous online meetings 1/25 from 6:30-8pm EST, 3/1 from 6:30-8pm EST, 4/5 from 6:30-8pm EST and 5/3 from 6:30-8pm EST.	

JOUR181 **Grammar for Journalists**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: ENGL181, ENGL281, or JOUR181.

The basic grammatical structures of standard American written English and its conventions of punctuation, diction and usage in journalistic writing.

0101	Linda Coleman	Seats (Total: 144)
	W 2:00pm - 2:50pm	ONLINE

JOUR199 **Survey Apprenticeship**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

College-monitored experience in approved mass-communications organizations and industries.

Prerequisite: permission of department. Repeatable to 6 credits if content differs. Students must meet with the Internship Director in KNI 1100 to receive permission to register. No requests to register after the Schedule Adjustment Period will be honored.

0101	Karen Denny	Seats (Total: 35)
	Contact instructor or department for details.	

JOUR200 **Journalism History, Roles and Structures**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Introduction to the study of journalism from the standpoint of media history and sociology.

0101	Carole Lee MW 3:30pm - 4:45pm	Seats (Total: 38) KNI 1208
0201	Carolina Siqueira Paranhos Velloso TuTh 12:30pm - 1:45pm	Seats (Total: 38) TYD 1114

JOUR201 **News Writing and Reporting I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENGL101, JOUR181, and JOUR200; and permission of JOUR-Philip Merrill College of Journalism. Restriction: For students intending to be journalism majors; and permission of JOUR-Philip Merrill College of Journalism.

Introduction to news for the print and electronic media, development of new concepts: laboratory in news-gathering tools and writing skills. Students who earned 80% or higher on the JOUR181 diagnostic are exempt from the JOUR181 prerequisite.

For students intending to be journalism majors.

0201	Daarel Burnette MW 6:00pm - 7:50pm	Seats (Total: 18) KNI 1101
0401	Carole Lee MW 12:00pm - 1:50pm	Seats (Total: 17) KNI 1101
0501	Rob Wells MW 4:00pm - 5:50pm	Seats (Total: 18) KNI 2107
0601	Merrilee Cox TuTh 10:00am - 11:50am	Seats (Total: 16) KNI 1101
0801	Rob Wells TuTh 4:00pm - 5:50pm	Seats (Total: 18) KNI 2103

JOUR202 **News Editing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: JOUR201. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism.

Copy editing, fact checking, verification and research across media platforms, including social, with consideration of story play and placement, graphic principles, headlines and SEO.

0201	Kathleen Manzo TuTh 3:00pm - 4:50pm	Seats (Total: 18) KNI 2105
0301	Barbara Barrett MW 10:00am - 11:50am	Seats (Total: 18) KNI 1101

JOUR262 **News Videography**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in JOUR201. Jointly offered with: JOUR603. Credit only granted for: JOUR262 or JOUR603.

Introduction to shooting, editing and production of video stories for broadcast and the Web; includes newsgathering in the field.

0101	Benjamin Worsley TuTh 7:00pm - 8:50pm	Seats (Total: 11) TWS 0222B
0201	Alanna Delfino MW 7:00pm - 8:50pm	Seats (Total: 12) TWS 0222A
0401	Luke Rollins MW 7:00pm - 8:50pm	Seats (Total: 12) TWS 0222B
0801	Alexander Flum M 12:00pm - 2:45pm	Seats (Total: 12) KNI 2105
1001	Robin Sundaramoorthy MW 11:00am - 12:50pm	Seats (Total: 12) TWS 0222A

JOUR281 **Media Law and Ethics in the Digital Age**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, SCIS

Credit only granted for: JOUR289E or JOUR281. Formerly: JOUR289E. Additional information: This course is intended for non-journalism majors.

Explores the First Amendment, libel, privacy, FOIA and copyright as they have evolved in the digital news age of bloggers, tweeters and citizen journalists. The course will cover fundamental legal and ethical concepts as well as practical application.

0101	Christoph Mergerson TuTh 12:30pm - 1:45pm	Seats (Total: 40) KNI 1208

JOUR282 **Beyond Facebook: How Social Media are Transforming Society, Culture, Business and Politics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, SCIS

Credit only granted for: JOUR289F or JOUR282. Formerly: JOUR289F.

Examining the rise of social media and their impact on culture, business, government, politics, journalism and society, this course provides students with a broad contextual understanding of the multidisciplinary impacts of social media such as Twitter, Facebook and similar Internet-based services.

0101	Sarah Oates Class time/details on ELMs	Seats (Total: 70) ONLINE

JOUR283 **Probing War: Investigative Narratives and American Conflicts**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, SCIS

Credit only granted for: JOUR283 or JOUR289J. Formerly: JOUR289J.

Students will explore the realities of war through the work of journalists who pushed beyond the daily headlines, some risking life and limb, to challenge official versions and document uncomfortable realities about American conflicts.

0101	Christopher Hanson MW 11:00am - 12:15pm	Seats (Total: 30) KNI 1208

JOUR284 **Scandal: Exposing Corruption, Justice, and Vice in America**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Credit only granted for: JOUR289P, JOUR284 or HONR239J. Formerly: JOUR289P, HONR239J.

Students will examine the nature and meaning of scandals in society: how they are uncovered and constructed; why some forms of wrongdoing are considered scandalous but not others; how this definition has changed over time; and how scandals resonate in ways that reflect societal norms.

0101	Mark Feldstein MW 11:00am - 12:15pm	Seats (Total: 60) TWS 1310

JOUR289I **Information 3.0: Exploring Technological Tools**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: IE | General Education: DSSP, SCIS

Students will expand their understanding of various digital information and the issues it raises, evaluate media research investigating how users interact with information for different purposes, analyze how diverse audiences seek, select, share and produce various types of digital information, and evaluate the ethics related to digital privacy and security.

0101	Ronald Yaros TuTh 11:00am - 12:15pm *Students in this section will use a custom mobile app.*	Seats (Total: 70) ONLINE

JOUR320 **News Writing and Reporting II: Multiplatform**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in JOUR152; and minimum grade of C- in JOUR201; and must have completed or be concurrently enrolled in JOUR262 or JOUR370. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism.

Principles and practices of news reporting; covering news beats and other news sources, including researching news stories for accuracy, comprehensiveness and interpretation. Due to rigorous publication requirement, plan your schedule accordingly.

0201	David Lightman TuTh 8:00am - 9:50am	Seats (Total: 17) KNI 2105
0301	Jerry Zremski TuTh 6:00pm - 7:50pm	Seats (Total: 18) KNI 2105
0401	Clarence Williams TuTh 11:30am - 1:20pm	Seats (Total: 18) KNI 2103

JOUR325 **Capital News Service Bureau**

(Perm req)

Credits: 9 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Prerequisite: JOUR320; and permission of JOUR-Philip Merrill College of Journalism.

Advanced journalism training. Students report as part of college's Capital News Service program.

Washington, DC students should enroll in section 0101. Annapolis students should enroll in section 0201. College Park students should enroll in section 0301 and 0401.

0101	James Carroll Contact instructor or department for details.	Seats (Total: 10)
0201	Ronald Harris Contact instructor or department for details.	Seats (Total: 10)
0301	Adam Marton Contact instructor or department for details.	Seats (Total: 10)
0401	Alexander Pyles Contact instructor or department for details.	Seats (Total: 10)

JOUR328A **Special Topics in News Writing and Reporting; Sustainability, Change Management, and the Future of the News as a Business**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced training and practice in writing and reporting news.

Prerequisite: JOUR320. This class will cover the changing economics of the news industry, its history and its future. It will teach some of the essentials of transformational change management in news and will culminate in students critiquing a gap in a news organization's model and designing a performance challenge plan for that news organization to address that gap through innovation.

0101	Thomas Rosenstiel W 10:00am - 12:45pm	Seats (Total: 12) KNI 3200

JOUR328F **Special Topics in News Writing and Reporting; Reporting on Journalists Imprisoned Overseas**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced training and practice in writing and reporting news.

Prerequisite: JOUR320. In this course, students will dip into national security and diplomatic reporting by learning to research the context, laws and international pressure surrounding an individual journalist imprisoned in a particular country. Students will learn how to find sources and conduct interviews with diplomats, experts, reporters and family members living overseas while never leaving College Park.

0101	Dana Priest	Seats (Total: 6)
	M 9:45am - 12:30pm	KNI 3200

JOUR328G **Special Topics in News Writing and Reporting; Professionalization, Commercialization, Youth Sports & the Media I**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced training and practice in writing and reporting news.

Prerequisite: JOUR320. JOUR328G must be taken concurrently with JOUR328P. This course will explore the monetization of youth sports, including high school sports, on media platforms from ESPN to regional streaming platforms to community access channels.

0101	Mark Hyman	Seats (Total: 10)
	M 12:00pm - 2:45pm	KNI 1206

JOUR328I **Special Topics in News Writing and Reporting; Turning Your Journalism Degree into Multiple Career Options**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Advanced training and practice in writing and reporting news.

Prerequisite: Must have earned at least 45 credits. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism. Whether you love your major or hate it, it doesn't matter. That's because the skills you're learning are transferable into countless industries beyond journalism. You'll learn step-by-step how to inventory the most valuable skills you've gained inside and outside the classroom and translate them into tangible job functions that exist in almost any industry you can imagine. From Aeronautics to Architecture, from Hedge Funds to Health Care, from IG & TikTok to Intelligence & Foreign Affairs, this will be a course unlike any other you've taken because its sole focus is to help you identify at least three career options you'd be excited to pursue after you graduate and then show you how to use LinkedIn to uncover those jobs and internships.

0101	Andrea Koppel	Seats (Total: 65)
	Meets January 24, 2022 - March 12, 2022	
	M 2:30pm - 3:20pm	KNI 1208
	Class time/details on ELMs	ONLINE

JOUR328L **Special Topics in News Writing and Reporting; Sports and Society**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced training and practice in writing and reporting news.

Prerequisite: JOUR320. In this course, students examine sports and their impact on culture, politics, health, ethics and more. Class discussion and reporting assignments will focus on globalization of US sports leagues, the head trauma crisis in football, the future of sports gambling and the adult-managed world of youth sports, among other topics.

0101	David Steele	Seats (Total: 15)
	M 11:30am - 2:15pm	TWS 0222B

JOUR328O **Special Topics in News Writing and Reporting; News Application Development**

(Perm req)

Credits: 3 Grading Method: Regular

Advanced training and practice in writing and reporting news.

Prerequisite: JOUR472 or permission of instructor (dpwillis@umd.edu). A class that combines a survey of work in this area, featuring work done at organizations like ProPublica, the Associated Press, the San Francisco Chronicle and others, with practical skills in reporting and building news applications. Students will review and critique existing news apps, read materials from those who built them and develop projects in small groups that display data in a news app style. Key skills gained include: backend development, frontend development, command-line usage and some data analysis.

0101	Derek Willis	Seats (Total: 9)
	MW 10:00am - 11:50am	KNI 2105

JOUR328P **Special Topics in News Writing and Reporting; Professionalization, Commercialization, Youth Sports & the Media II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced training and practice in writing and reporting news.

Prerequisite: JOUR320. JOUR328P must be taken concurrently with JOUR328G. This course will explore the monetization of youth sports, including high school sports, on media platforms from ESPN to regional streaming platforms to community access channels.

0101	Mark Hyman	Seats (Total: 10)
	W 12:00pm - 2:45pm	KNI 1206

JOUR328R **Special Topics in News Writing and Reporting; Business and Economic Reporting**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Advanced training and practice in writing and reporting news.

Prerequisite: JOUR320. Students will explore why economic and business themes are among the top stories generating reader interest. Topics vary each semester but can focus on the economic impact of immigration, employment, income inequality, wage stagnation, trade wars and affordable housing. Students will learn to identify newsworthy stories and interpret and integrate numbers and financial data into stories in a compelling way.

0101	Constance Ford W 10:00am - 12:45pm	Seats (Total: 6) KNI 2103

JOUR328T **Special Topics in News Writing and Reporting; Data Visualization**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced training and practice in writing and reporting news.

Prerequisite: JOUR352. This course is focused on data visualization in the service of journalistic storytelling. Students will learn data visualization theory, best practices and methods, including how to create data visualizations using a variety of tools.

0101	Adam Marton W 12:00pm - 2:45pm	Seats (Total: 10) KNI 2105

JOUR334 **Audio and Podcast Reporting**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: JOUR360. Credit only granted for: JOUR334, JOUR368L, JOUR668L or JOUR634. Formerly: JOUR368L.

Students will learn the tools needed to report and produce short- and long-form audio storytelling, including writing, reporting, interviewing, production, editing, hosting and delivery. Field reporting and audio gathering outside of class are required, along with writing and mixing broadcast-quality audio stories. Students will work together to produce a complete radio broadcast on deadline, with live and pre-recorded elements. Various interests in audio reporting are welcome and encouraged.

0101	Steven Drummond Tu 5:30pm - 8:15pm *Adobe Audition proficiency required.*	Seats (Total: 11) KNI 1101

JOUR352 **Interactive Design and Development**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: JOUR152; and JOUR201; and must have completed or be concurrently enrolled in JOUR262 or JOUR370. Or permission of JOUR-Philip Merrill College of Journalism. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism. Jointly offered with JOUR652. Credit only granted for: JOUR352 or JOUR652.

Conceptualize, wireframe, design and build responsive Web pages using HTML, style sheets and other coding tools; work with open source interactive tools, JavaScript libraries, multimedia and text to create charts, timelines, maps and other forms of nonfiction storytelling.

0101	Chris Cioffi Th 6:30pm - 9:15pm	Seats (Total: 18) KNI 2107
0201	Gagan Nirula Th 5:30pm - 8:15pm	Seats (Total: 14) KNI 1101
0401	Emma Harris M 9:00am - 11:45am	Seats (Total: 18) ONLINE
0501	Kalani Gordon Th 6:00pm - 8:45pm	Seats (Total: 18) ONLINE

JOUR353 **News Bureau: Multimedia Reporting**

(Perm req)

Credits: 6

Grading Method: Regular, Pass-Fail, Audit

General Education: DSSP

Prerequisite: JOUR352; and permission of JOUR-Philip Merrill College of Journalism; and (JOUR320 or JOUR360).

Advanced reporting and writing in an online environment focusing on multimedia, non-traditional storytelling and investigative reporting.

Contact instructor to obtain permission.

0101	James Carroll Contact instructor or department for details.	Seats (Total: 9)
0201	Ronald Harris Contact instructor or department for details. *This section is for Annapolis students.*	Seats (Total: 9)

0401	Deborah Nelson	Seats (Total: 9)
	Contact instructor or department for details.	
	This section is for Investigative Reporting students.	

JOUR355 **News Bureau: Multimedia Editing and Production**

(Perm req)

Credits: 6 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: JOUR320 or JOUR360; and JOUR352; and permission of JOUR-Philip Merrill College of Journalism.

Advanced online journalism training. Students work as multimedia and social media editors and producers, building interactive content and special reports.

0101	Adam Marton	Seats (Total: 10)
	Contact instructor or department for details.	
0201	Alexander Pyles	Seats (Total: 10)
	Contact instructor or department for details.	
0301	Sean Mussenden	Seats (Total: 4)
	Contact instructor or department for details.	
	Contact department or instructor for details.	

JOUR357 **Capital News Service Broadcast Immersion**

(Perm req)

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: JOUR361; and permission of JOUR-Philip Merrill College of Journalism.

Advanced broadcast journalism training. Students report as part of the College's Capital News Service program.

0101	Melvin Coffee	Seats (Total: 10)
	Contact instructor or department for details.	

JOUR360 **News Writing and Reporting II: Broadcast**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in JOUR201. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism.

Writing and reporting for broadcast media: production of news stories.

0101	Mark Feldstein MW 2:00pm - 3:50pm	Seats (Total: 17) KNI 2103	
0301	Alison Burns TuTh 10:00am - 11:50am	Seats (Total: 18) KNI 2105	

JOUR361 **Television Reporting and Production**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: JOUR262 and JOUR360.

Writing and editing for the broadcast media. Interpretive and documentary news stories.

Students will spend several hours per week on field assignments, in addition to scheduled class sessions.

0101	Joshua Davidsburg TuTh 12:00pm - 1:50pm	Seats (Total: 8) TWS 0222B	

JOUR362 **Broadcast News Producing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: JOUR262 and JOUR360; and must have completed or be concurrently enrolled in JOUR361.

Producing TV news.

0101	Cindy Wright Tu 6:30pm - 8:00pm Tu 2:00pm - 6:30pm	Seats (Total: 3) TWS 0117 TWS 0117	 Lab
0103	Cindy Wright Tu 6:30pm - 8:00pm Th 2:00pm - 6:30pm	Seats (Total: 3) TWS 0117 TWS 0117	 Lab

JOUR364 **Advanced Audio and Podcast Reporting**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: JOUR 334. Jointly offered with: JOUR664.

Students will receive professional skills training in the reporting, writing, editing, voicing and production of radio news. Students will be required to do extensive field reporting, along with writing and mixing radio pieces. They will also participate in other aspects of radio news production, including editing, directing, live interviewing and hosting. By the end of the semester, students will have created all the elements of a complete radio broadcast. The class will also delve into the history and evolution of radio news and its future in podcasting and other forms.

0101	Robert Little W 5:30pm - 8:15pm	Seats (Total: 9) KNI 3210

JOUR367 **Broadcast News Bureau**

(Perm req)

Credits: 9 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Prerequisite: JOUR361; and permission of JOUR-Philip Merrill College of Journalism.

Advanced broadcast journalism training. Students report as part of the college's Capital News Service program.

0101	Melvin Coffee Contact instructor or department for details.	Seats (Total: 10)

JOUR368D **Topics in Broadcast and Electronic Media; Social Media Content Creation, Audience Engagement and Analytics**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR320/JOUR360. This class will provide students with an overview of social media best practices for journalists, and will work to develop their skills in the following areas: social content creation, audience engagement, sourcing and verification and analytics. By the end of this course, students will have the practical skills needed to manage a social media account for themselves (as student or professional journalists) or contribute to the management of a news organization's social media presence.

0101	Alexander Pyles Th 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 16) KNI 2107 ONLINE

JOUR368E **Topics in Broadcast and Electronic Media; Streaming and Broadcast Design**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR262. This course explores the culture and practice of live streaming. Through a hands-on approach, it leads students from the various stages of live streaming account creation, production design and delivery, audience garnering and engagement. Beyond Twitch, it will also examine other popular streaming platforms. At the end of the course, you should understand how accessible and valuable streaming is for you.

0101	Nathaniel Stevens W 3:00pm - 5:30pm	Seats (Total: 10) TWS 0117	

JOUR368F **Topics in Broadcast and Electronic Media; Studio Production**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR361. This course will take you through every production aspect related to studio production. This includes learning how to plan and execute a live studio production featuring camera crews, a floor director, producer, director, technical director, audio, and teleprompter. Labs will focus on putting together and executing a live newscast production.

0101	Nathaniel Stevens M 4:00pm - 5:30pm Tu 4:00pm - 6:00pm	Seats (Total: 4) TWS 0117 TWS 0116	 Lab
0102	Nathaniel Stevens M 4:00pm - 5:30pm Th 4:00pm - 6:00pm	Seats (Total: 4) TWS 0117 TWS 0116	 Lab

JOUR368I **Topics in Broadcast and Electronic Media; Designing Stories with Motion Graphics**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR203 or JOUR262 or JOUR370. In this course, students will learn how to create motion graphics that turn data and facts into visually compelling animated stories. Students will learn theories and practices of animation, design and visual journalism. After completing this course, students will have a solid grasp of storyboarding, scripting and creating motion graphic stories using the Adobe After Effects software.

0101	Krishnan Vasudevan	Seats (Total: 14)	
	M 12:00pm - 1:50pm	KNI 2107	
	W 12:00pm - 1:50pm	KNI 2107	Lab

JOUR368K **Topics in Broadcast and Electronic Media; Video Innovation**

(Perm req)

Credits: 3 Grading Method: Regular

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR262. Recommended: JOUR361 or JOUR368X. NewsBIN focuses on the future of video journalism, from documentary to 360 videos. In the class, students can experiment with cinematic techniques, motion graphics, choose-your-own-adventure style videos and more. The class is heavily influenced by independent documentary filmmaking and video storytelling. Students will be required to contribute to a weekly behind-the-scenes vlog of our class documenting the work we do.

0101	Joshua Davidsburg	Seats (Total: 10)
	Tu 2:00pm - 4:45pm	TWS 0222B

JOUR368N **Topics in Broadcast and Electronic Media; Advanced Photojournalism**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR370. This course will provide a deeper dive into the storytelling medium of photojournalism. Students will learn the skills necessary to tell in-depth, long-term stories through the use of still photography. Topics of discussion will include the history of photojournalism, changing approaches to the photo story/photo essay over time, how to approach a variety of potential subject matter and situations, finding long-term photo story projects and organizing images for a variety of digital and traditional formats.

0101	Timothy Jacobsen	Seats (Total: 12)
	W 4:00pm - 6:45pm	KNI 2105

JOUR368X **Topics in Broadcast and Electronic Media; Documentary Filmmaking**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR262 and JOUR320/JOUR360. Hands-on independent documentary production. From pre-production to distribution, the class will include field production, pitching, grant writing and more.

0101	Joshua Davidsburg TuTh 10:00am - 11:50am	Seats (Total: 13) TWS 0222B

JOUR368Y **Topics in Broadcast and Electronic Media; Sports Producing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR262 and JOUR360; or JOUR320. This class will take an analytical look at sports TV and sports content by deconstructing shows We will examine the producer's role in creating the look, feel and direction of shows and learn how to choose a lead story, how to "tease" and the importance of identifying and telling good stories. We will will watch live televised sporting events to better understand the techniques used by directors and producers. Students will get hands-on experience with BTN2GO and learn all aspects of live game production.

0101	Joseph Yasharoff W 7:00pm - 9:45pm	Seats (Total: 12) KNI 2103

JOUR370 **Photojournalism**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in JOUR201. Restriction: Permission of JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR 368P, JOUR 370 or JOUR 670. Formerly: JOUR 368P. Additional information: Students are required to borrow, rent or purchase a 35mm digital camera. Contact department for camera specifications.

Examining the basics of shooting, editing and storytelling with still photos taken with 35mm digital cameras. Students shoot portraits, feature photos and action shots. Final project is a photo story/essay.

0301	Timothy Jacobsen F 12:00pm - 2:45pm	Seats (Total: 13) KNI 1101
0501	Jaclyn Borowski M 9:00am - 11:45am	Seats (Total: 14) KNI 2103
0701	Graham Cullen F 10:00am - 12:45pm	Seats (Total: 14) KNI 2103

JOUR371 **Feature Writing**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: JOUR320.

Research and writing feature articles.

0101	DeNeen Brown	Seats (Total: 18)
	M 2:00pm - 4:45pm	KNI 1101

JOUR382 **Sports Writing and Reporting**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: JOUR320; and permission of JOUR-Philip Merrill College of Journalism. Jointly offered with: JOUR682. Credit only granted for: JOUR328B, JOUR382 or JOUR682. Formerly: JOUR328B.

Gives students full and wide-ranging instruction in all aspects of sports reporting and writing, including how to report, write, edit and lay out sports stories, incorporating photography and multimedia. We will also discuss ethics, objectivity, fairness and the future of sports journalism.

0101	Kevin Blackistone	Seats (Total: 7)
	MW 10:00am - 11:15am	KNI 1206

JOUR389O **News Coverage of Special Topics; Reporting the Election of '22 -- Daily Journalism Under Pressure I**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Advanced training and practice in writing and reporting news in one specialized field of interest.

Prerequisite: JOUR320/JOUR360. JOUR389O must be taken concurrently with JOUR389P. We will study the daily coverage of the 22 election, analyzing the differences in reporting by three networks. This emphasizes reporting, critical thinking, and journalistic judgements. It studies competitive television news coverage but is not a television course. The reporting will center on politics but will not overlook other major stories. Who controls the Senate and House will determine the course of the Biden presidency.

0101	Tom Bettag	Seats (Total: 8)
	M 10:00am - 12:30pm	KNI 1109

JOUR389P **News Coverage of Special Topics; Reporting the Election of '22 -- Daily Journalism Under Pressure II**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Advanced training and practice in writing and reporting news in one specialized field of interest.

Prerequisite: JOUR320/JOUR360. JOUR389P must be taken concurrently with JOUR389O. We will study the daily coverage of the 22 election, analyzing the differences in reporting by three networks. This emphasizes reporting, critical thinking, and journalistic judgements. It studies competitive television news coverage but is not a television course. The reporting will center on politics but will not overlook other major stories. Who controls the Senate and House will determine the course of the Biden presidency.

0101	Tom Bettag	Seats (Total: 8)
	W 10:00am - 12:30pm	KNI 1109

JOUR396 **Supervised Internship**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: Must have earned a grade of C- or better in JOUR320. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR326, JOUR366, or JOUR396.

Students will complete a minimum of 90 hours in a supervised journalism internship over a minimum of 10 weeks in spring and fall, and eight weeks in summer. Emphasis is on relating academic training to professional experience. Students may pick up an internship proposal form in KNI 1100, have their internship supervisor fill it out, and meet with the college's internship director to receive permission to register. No requests to register after the Schedule Adjustment Period will be granted. This requirement would affect incoming freshmen from the fall 2012 class.

0101	Karen Denny	Seats (Total: 75)
	Contact instructor or department for details.	

JOUR398 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular

Individual projects in journalism.

Contact department for information to register for this course.

JOUR402 **Journalism Law and Ethics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: JOUR201. Credit only granted for: JOUR402 OR JOUR400 and JOUR300.

An examination of the legal rights and ethical problems and constraints of mass media, including libel, privacy, copyright, monopoly and contempt.

0101	Christoph Mergerson TuTh 3:30pm - 4:45pm	Seats (Total: 40) KNI 1208
0201	Sandra Banisky TuTh 11:00am - 12:15pm	Seats (Total: 41) KNI 1208

JOUR405 **Breaking News With Numbers: Statistics for Journalists**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSAR

Prerequisite: Minimum grade of C- in JOUR201; and (MATH107 or MATH110; or must have completed a higher level math course). Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201.

Common statistical tools, software and data visualization techniques will be used to allow students to analyze data and solve problems relevant to reporting and writing about politics, sports, criminal justice, business and other fields.

0101	Tom Brune Class time/details on ELMs	Seats (Total: 38) ONLINE

JOUR452 **Women in the Media**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DVUP

Cross-listed with: WGSS452. Credit only granted for: JOUR452, WMST452 or WGSS452. Formerly: WMST 452.

Participation and portrayal of women in the mass media from colonial to contemporary times.

0101	Bobbie Foster TuTh 2:00pm - 3:15pm	Seats (Total: 30) KNI 3202

JOUR453 **News Coverage of Racial Issues**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DVUP

Restriction: Junior standing or higher.

Analysis of news media coverage of issues relating to racial minorities in the United States, with special attention to Hispanics, Asian Americans, African Americans and Native Americans.

0101	Anne Rosen	Seats (Total: 25)
	TuTh 9:30am - 10:45am	KNI 3202

JOUR455 **Media Entrepreneurship**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: JOUR459E or JOUR455. Formerly: JOUR459E.

Basic business and entrepreneurship concepts will be covered and will explore how technology is transforming the business of media. Students develop and pitch ideas for media businesses, learn startup basics, do exercises in Internet advertising and business plan analysis, use social networks and other digital communication tools, and perform other hands-on exercises in business development and presentation.

PCJ1	Thomas Davidson	Seats (Total: 15)
	Sa 1:30pm - 5:15pm Class time/details on ELMs	KNI 1206 ONLINE
	Must be in the Multimedia Journalism (GC) program. All other graduate students must request permission. Contact oes@umd.edu.	

JOUR456 **Literature in Journalism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Credit only granted for: JOUR456 or JOUR673.

From Truman Capote's In Cold Blood to Mark Bowden's Black Hawk Down, students will examine how literary works can help writers approach a subject in a different way than more traditional forms of journalism, including the advantages and limitations of the style.

0101	Christopher Hanson	Seats (Total: 18)
	Tu 4:15pm - 7:00pm	KNI 3202

JOUR458B **Special Topics in Journalism; Sports Media Today**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Issues of special concerns and current interest.

Students will discuss working with various organizations' communications/media relations staff, coaches and players; distributing news of the organizations; and creating/maintaining methods for disseminating that news to the public in an honest and forthright manner. Also, traditional, digital and social media elements will be explored. Restriction: Junior Standing or higher.

0101	Rose DiPaula	Seats (Total: 27)
	Tu 3:30pm - 6:15pm	KNI 1105

JOUR458K **Special Topics in Journalism; The Changing Role, Responsibilities and Norms of Journalism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Issues of special concerns and current interest.

This class will take students through a critical review of how news and information flows in society today, how that is continuously changing, and what it means about how journalists and news organizations should alter routines and practices and while defending foundational principles. Students will think about their own goals as news practitioners, their habits as consumers. Ultimately, they will draft a set of principles and practices and a statement of values for a news organization that they would lead, applying the critical thinking and historical review learned in the class.

0101	Thomas Rosenstiel	Seats (Total: 18)
	M 2:30pm - 5:15pm	KNI 3202

JOUR458X **Special Topics in Journalism; The Media and Mass Shootings**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Issues of special concerns and current interest.

A rigorous and hands-on exploration of how these continuing American tragedies should be covered, focusing on ethics, writing about traumatic subjects, and explanatory reporting that can shape non-partisan discussions about ending this scourge on society.

0101	Michael Rosenwald	Seats (Total: 15)
	W 1:00pm - 3:45pm	KNI 3200

JOUR459B **Special Topics in Journalism; European Mass Media**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Issues of special concern and current interest. Open to all students.

Contact department for information to register for this course.

JOUR459E **Special Topics in Journalism; Environmental Justice Journalism**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Issues of special concern and current interest. Open to all students.

This course will ground students in the core issues of the Chesapeake Bay and the land that surrounds it as well as the multi-state government effort to clean up pollution. It will look at rural and urban parts of the landscape, the sources reporters need to cultivate for a complete story, and the different storytelling approaches reporters can take for stories that ooze instead of break. The class will also touch on crucial issues of our time, including climate change, environmental justice, and clean water and air.

0101	Rona Kobell	Seats (Total: 15)
	Tu 10:00am - 12:45pm	KNI 3200

JOUR459F **Special Topics in Journalism; Media in War and Crisis**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Issues of special concern and current interest. Open to all students.

Contact department for information to register for this course.

JOUR459K **Special Topics in Journalism; Global Media and International Journalism in the 21st Century**

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Issues of special concern and current interest. Open to all students.

Contact department for information to register for this course.

JOUR459R **Special Topics in Journalism; Media and Human Rights in the Internet Age**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Issues of special concern and current interest. Open to all students.

Focus is placed on new approaches and new roadblocks to coverage of human rights issues, as journalists and repressive governments develop new strategies to either obtain or suppress information about abuses andpublic protests. We will discuss the evolution of the media's role indocumenting human rights violations, from the U.S. Civil Rights movementto the Arab Spring to contemporary events online and on the ground -- in China, Russia, and the United States. Students will have opportunities to write each week on human rights issues and internet freedom, and to report and write in-depth, publishable articles.

0101	Robert Ruby MW 11:00am - 12:15pm	Seats (Total: 18) KNI 1105	

JOUR472 **Data Journalism**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: JOUR320 or JOUR360. Jointly offered with: JOUR772. Credit only granted for: JOUR472 or JOUR772.

A practical, skills-based course in the basics of modern data journalism, data literacy and data storytelling. Students will learn to use data visualization, data analysis and other data-driven reporting techniques.

Prerequisite: JOUR320 or JOUR360. Computer and online data acquisition; analytical methods for writing and reporting news.

0101	Derek Willis Tu 12:00pm - 1:50pm Th 12:00pm - 1:50pm	Seats (Total: 7) KNI 1101 KNI 1101	 Lab
0201	Derek Willis Tu 3:00pm - 4:50pm Th 3:00pm - 4:50pm	Seats (Total: 9) KNI 1101 KNI 1101	 Lab

JOUR475 **Understanding Audiences and Analytics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Student must have completed a university statistics course. Credit only granted for: JOUR479O or JOUR475. Formerly: JOUR479O.

As journalism evolves, it may be more important than ever to understand what were once simply called "audiences" -- who they are, how they consume news, and what that engagement means for them and for society. Students will learn to think critically about news audiences and contemporary issues in audience research.

0101	Ronald Yaros Tu 12:30pm - 1:45pm Th 12:30pm - 1:45pm	Seats (Total: 18) ONLINE KNI 2105	

JOUR479A **Special Topics in Data Gathering and Analysis; Basketball Analytics**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Special research topics for reporting and writing.

Prerequisite: A university statistics course. Students will learn how analytics inform and enhance the decision-making process of basketball teams. Course material will focus on publicly available data, reputable basketball publications and class discussions that challenge students to understand topics such as in-game strategy, player/team performance metrics, and roster construction, among other subjects. Students will learn how to apply these tools to enhance journalistic coverage of basketball and other major sports.

0101	Benjamin Eidelberg	Seats (Total: 18)
	M 4:00pm - 6:45pm	KNI 2103

JOUR479E **Special Topics in Data Gathering and Analysis; Political Analysis**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Special research topics for reporting and writing.

Prerequisite: Must have completed a university statistics course. Students are provided with advanced research skills to analyze elections, including political parties, candidates, news coverage, and voters. This will include a review of studies of election coverage as well as learning how to deploy a range of research tools in order to gain deeper understanding of elections and voting behavior. Students will learn how to conduct comparative analysis of campaign materials, analyze candidate performance, assess media treatment of candidates, forecast results as well as introduce students to a range of analytical tools for tracking data in traditional and social media.

0101	Sarah Oates	Seats (Total: 18)
	MW 10:30am - 11:45am	KNI 2107

JOUR479F **Special Topics in Data Gathering and Analysis; Investigative Skills: Finding and Cultivating Sources**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Special research topics for reporting and writing.

Research methods appropriate for journalists take many forms, including knowing how to find, obtain and analyze public documents and government data and records. This course concentrates on researching, finding and developing the people who can tell you things about their intimate lives or the workings of businesses, institutions and government that can't always be found through documents. You will learn methods to approach and interview people you have never spoken to before, how to create trusting relationships with people of different work cultures and how to convince sensitive sources to open up and tell you things that will lead to the best stories.

0101	Dana Priest M 2:30pm - 5:15pm	Seats (Total: 18) KNI 3200
	Students cannot get credit for this course if they have completed JOUR328Y/JOUR628Y (Finding, Cultivating and Protecting Human Sources).	

JOUR501 **Fundamentals of Writing and Editing**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Permission of JOUR-Philip Merrill College of Journalism.

Principles of news and feature writing. For graduate students with limited prior training or experience in journalism.

0401	Carole Lee MW 12:00pm - 1:50pm	Seats (Total: 1) KNI 1101
0601	Merrilee Cox TuTh 10:00am - 11:50am	Seats (Total: 2) KNI 1101

JOUR603 **News Videography**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: JOUR504; and permission of Journalism College required. Restriction: Permission of JOUR-Philip Merrill College of Journalism. Jointly offered with JOUR262. Credit only granted for: JOUR503 or JOUR603. Formerly: JOUR503.

Introduction to shooting, editing and production of video stories for broadcast and the Web; includes newsgathering in the field.

0101	Benjamin Worsley TuTh 7:00pm - 8:50pm	Seats (Total: 1) TWS 0222B

JOUR620 **Public Affairs Reporting**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: JOUR501; or permission of JOUR-Philip Merrill College of Journalism.

Designed to add to and sharpen the skills learned in JOUR501. It is primarily an introduction to "beat" reporting that allows students to sample the most common new beats while reporting and writing on deadline. Students are required to develop and hone their multimedia skills by reporting in a variety of media.

0101	Constance Ford TuTh 9:30am - 11:20am	Seats (Total: 10) KNI 2103
0201	Christine Harvey TuTh 9:30am - 11:20am	Seats (Total: 10) KNI 2107
0301	David Lightman TuTh 8:00am - 9:50am	Seats (Total: 1) KNI 2105

JOUR623 **Mobile Journalism**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Students must have basic computer skills. Credit only granted for: JOUR689M or JOUR623. Formerly: JOUR689M.

A review of several mobile applications and the "hands-on" skills needed to collect and share news in the field. First, students learn how to remotely post information to blogs and social networks. Students then learn and practice the latest location-based production techniques using web services on wireless laptops and mobile devices. Students use laptops (and their own "SmartPhone") to record, edit and upload audio and video.

PCJ1	Ronald Yaros Sa 8:30am - 12:15pm Class time/details on ELMs	Seats (Total: 15) KNI 3202 ONLINE
	Must be in the Multimedia Journalism (GC) program. All other graduate students must request permission. Contact oes@umd.edu.	

JOUR625 **Advanced Capital News Service Bureau**

(Perm req)

Credits: 6 Grading Method: Regular, Audit

Prerequisite: JOUR620; and permission of JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR625 or JOUR729. Formerly: JOUR729.

Advanced journalism training. Students report as part of College's Capital News Service program.

Washington, D.C. Bureau students register for section 0101. Annapolis Bureau students register for section 0201.

0101	James Carroll Contact instructor or department for details.	Seats (Total: 10)
0201	Ronald Harris Contact instructor or department for details.	Seats (Total: 10)

JOUR628A **Specialized Topics in News Writing and Reporting; Sustainability, Change Management, and the Future of the News as a Business**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite: JOUR620. This class will cover the changing economics of the news industry, its history and its future. It will teach some of the essentials of transformational change management in news and will culminate in students critiquing a gap in a news organization's model and designing a performance challenge plan for that news organization to address that gap through innovation.

0101	Thomas Rosenstiel W 10:00am - 12:45pm	Seats (Total: 3) KNI 3200

JOUR628B **Specialized Topics in News Writing and Reporting; Sports Reporting and Writing**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite: JOUR620. This course will give students full and wide-ranging instruction in all aspects of sports reporting and writing, from the history of the craft to its mechanics, including how to prepare to report and write sports stories, incorporating photography, audio, video and interactive mechanics and the laying out and editing of them. We will also discuss ethics, objectivity, fairness and the future of sports journalism.

0101	Kevin Blackistone MW 10:00am - 11:15am	Seats (Total: 8) KNI 1206

JOUR628C **Specialized Topics in News Writing and Reporting; Advanced Howard Center Investigations I**

(Perm req)

Credits: 3 Grading Method: Regular

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

0101	Sean Mussenden	Seats (Total: 5)
	Contact instructor or department for details.	

JOUR628G **Specialized Topics in News Writing and Reporting; Professionalization, Commercialization, Youth Sports & the Media**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite: JOUR620. This course will explore the monetization of youth sports, including high school sports, on media platforms from ESPN to regional streaming platforms to community access channels.

0101	Mark Hyman	Seats (Total: 2)
	M 12:00pm - 2:45pm	KNI 1206

JOUR628I **Specialized Topics in News Writing and Reporting; Advanced Howard Center Investigations II**

(Perm req)

Credits: 3 Grading Method: Regular

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

0101	Kathy Best	Seats (Total: 5)
	Contact instructor or department for details.	

JOUR628N **Specialized Topics in News Writing and Reporting; Reporting on Journalists Imprisoned Overseas**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite: JOUR620. In this course, students will dip into national security and diplomatic reporting by learning to research the context, laws and international pressure surrounding an individual journalist imprisoned in a particular country. Students will learn how to find sources and conduct interviews with diplomats, experts, reporters and family members living overseas while never leaving College Park.

0101	Dana Priest	Seats (Total: 4)
	M 9:45am - 12:30pm	KNI 3200

JOUR628O **Specialized Topics in News Writing and Reporting; News Application Development**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite: JOUR772 or permission of instructor (dpwillis@umd.edu). A class that combines a survey of work in this area, featuring work done at organizations like ProPublica, the Associated Press, the San Francisco Chronicle and others, with practical skills in reporting and building news applications. Students will review and critique existing news apps, read materials from those who built them and develop projects in small groups that display data in a news app style. Key skills gained include: backend development, frontend development, command-line usage and some data analysis.

0101	Derek Willis	Seats (Total: 9)
	MW 10:00am - 11:50am	KNI 2105

JOUR628R **Specialized Topics in News Writing and Reporting; Business and Economics**

(Perm req)

Credits: 3 Grading Method: Regular

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite: JOUR620. Students will explore why economic and business themes are among the top stories generating reader interest. Topics vary each semester but can focus on the economic impact of immigration, employment, income inequality, wage stagnation, trade wars and affordable housing. Students will learn to identify newsworthy stories and interpret and integrate numbers and financial data into stories in a compelling way.

0101	Constance Ford	Seats (Total: 1)
	W 10:00am - 12:45pm	KNI 2103

JOUR628T **Specialized Topics in News Writing and Reporting; Data Visualization**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite: JOUR652. This course is focused on data visualization in the service of journalistic storytelling. Students will learn data visualization theory, best practices and methods, including how to create data visualizations using a variety of tools.

0101	Adam Marton W 12:00pm - 2:45pm	Seats (Total: 8) KNI 2105

JOUR634 **Audio and Podcast Reporting**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: JOUR660; or permission of Philip Merrill School of Journalism Associate Dean. Jointly offered with: JOUR334. Credit only granted for: JOUR334, JOUR368L, JOUR668L or JOUR634. Formerly: JOUR668L.

Students will learn the tools needed to report and produce short- and long-form audio storytelling, including writing, reporting, interviewing, production, editing, hosting and delivery. Field reporting and audio gathering outside of class are required, along with writing and mixing broadcast-quality audio stories. The class will produce a complete newscast on deadline, with live and pre-recorded elements. Various interests in audio reporting are welcome and encouraged.

0101	Steven Drummond Tu 5:30pm - 8:15pm	Seats (Total: 2) KNI 1101

JOUR652 **Interactive Design and Development**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Corequisite: Offered to students enrolled in the journalism master's degree or certificate. Master's degree students should take JOUR 504 as a pre- or co-requisite. Certificate students are encouraged to take JOUR 604 as a co-requisite. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR652 or JOUR352.

Conceptualize, wireframe, design and build responsive Web pages using HTML, style sheets and other coding tools; work with open source interactive tools and JavaScript libraries to create charts, timelines and maps to tell stories.

0201	Gagan Nirula Th 5:30pm - 8:15pm	Seats (Total: 4) KNI 1101

JOUR655 **Advanced Online News Bureau**

(Perm req)

Credits: 6 Grading Method: Regular, Audit

Prerequisite: JOUR603 or JOUR620; and (JOUR504 and JOUR652). Or permission of JOUR-Philip Merrill College of Journalism.

Advanced online journalism training. Students work as online reporters, editors and producers for a news site. Students also package copy from the print and broadcast news bureaus.

0101	Adam Marton Contact instructor or department for details.	Seats (Total: 4)
0201	Alexander Pyles Contact instructor or department for details.	Seats (Total: 4)
0301	Sean Mussenden Contact instructor or department for details. *Contact department or instructor for details.*	Seats (Total: 3)

JOUR660 **Broadcast News Writing**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: JOUR501. Credit only granted for: JOUR660 or JOUR760. Formerly: JOUR760.

Descriptive and critical analysis of broadcast news; methods of evaluation of news judgments; decision-making and organizational aspects of the broadcast news industry.

0301	Alison Burns TuTh 10:00am - 11:50am	Seats (Total: 1) KNI 2105

JOUR661 **Television Reporting and Production**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: JOUR603; or students who have taken courses with comparable content may contact the department. Restriction: Must not be in Journalism Studies (Doctoral) program.

Reporting, writing, editing and production of broadcast news.

0101	Joshua Davidsburg TuTh 12:00pm - 1:50pm	Seats (Total: 6) TWS 0222B

JOUR662 **Broadcast News Producing**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Must have completed or be concurrently enrolled in JOUR661; and (JOUR603 and JOUR660). Jointly offered with JOUR362. Cred it only granted for: JOUR668B or JOUR662. Formerly: JOUR668B.

Learn and practice the basics of broadcast newscast producing. Design, write, edit and implement a news program.

0101	Cindy Wright	Seats (Total: 1)	
	Tu 6:30pm - 8:00pm	TWS 0117	
	Tu 2:00pm - 6:30pm	TWS 0117	Lab
0103	Cindy Wright	Seats (Total: 1)	
	Tu 6:30pm - 8:00pm	TWS 0117	
	Th 2:00pm - 6:30pm	TWS 0117	Lab

JOUR664 **Advanced Audio and Podcast Reporting**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: JOUR634; or permission of JOUR-Philip Merrill College of Journalism. Restriction: Permission of JOUR-Philip Merrill College of Journalism. Jointly offered with: JOUR364.

Students receive professional skills training in the reporting, writing, editing, voicing and production of radio news. Students will be required to do extensive field reporting, along with writing and mixing broadcast-quality radio pieces. They will also participate in other aspects of radio news production, including editing, directing, live interviewing and hosting. By the end of the semester, students will have created all the elements of a complete radio broadcast, including news spots, finished pieces, two-ways and a long-form audio segment. The class will also delve into the history and evolution of radio news and its future in podcasting and other forms.

0101	Robert Little	Seats (Total: 4)
	W 5:30pm - 8:15pm	KNI 3210

JOUR667 **Broadcast News Bureau**

(Perm req)

Credits: 6 Grading Method: Regular, Audit

Prerequisite: JOUR503; or students who have taken courses with comparable content may contact the department. And permission of JOUR-Philip Merrill College of Journalism.

Advanced broadcast journalism training. Students report as part of the College's Capital News Service program.

0101	Melvin Coffee	Seats (Total: 6)
	Contact instructor or department for details.	

JOUR668D **Topics in Broadcasting and Electronic Media; Social Media Content Creation, Audience Engagement and Analytics**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR620. This class will provide students with an overview of social media best practices for journalists, and will work to develop their skills in the following areas: social content creation, audience engagement, sourcing and verification and analytics. By the end of this course, students will have the practical skills needed to manage a social media account for themselves (as student or professional journalists) or contribute to the management of a news organization's social media presence.

0101	Alexander Pyles	Seats (Total: 1)
	Th 12:30pm - 1:45pm	KNI 2107
	Class time/details on ELMs	ONLINE

JOUR668E **Topics in Broadcasting and Electronic Media; Streaming and Broadcast Design**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR603. This course explores the culture and practice of live streaming. Through a hands-on approach, it leads students from the various stages of live streaming account creation, production design and delivery, audience garnering and engagement. Beyond Twitch, it will also examine other popular streaming platforms. At the end of the course, you should understand how accessible and valuable streaming is for you.

0101	Nathaniel Stevens	Seats (Total: 4)
	W 3:00pm - 5:30pm	TWS 0117

JOUR668F **Topics in Broadcasting and Electronic Media; Studio Production**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR661. This course will take you through every production aspect related to studio production. This includes learning how to plan and execute a live studio production featuring camera crews, a floor director, producer, director, technical director, audio, and teleprompter. Labs will focus on putting together and executing a live newscast production.

0101	Nathaniel Stevens	Seats (Total: 1)	
	M 4:00pm - 5:30pm	TWS 0117	
	Tu 4:00pm - 6:00pm	TWS 0116	Lab
0102	Nathaniel Stevens	Seats (Total: 1)	
	M 4:00pm - 5:30pm	TWS 0117	
	Th 4:00pm - 6:00pm	TWS 0116	Lab

JOUR668I **Topics in Broadcasting and Electronic Media; Designing Stories with Motion Graphics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR504 or JOUR603. In this course, students will learn how to create motion graphics that turn data and facts into visually compelling animated stories. Students will learn theories and practices of animation, design and visual journalism. After completing this course, students will have a solid grasp of storyboarding, scripting and creating motion graphic stories using the Adobe After Effects software.

0101	Krishnan Vasudevan	Seats (Total: 4)	
	M 12:00pm - 1:50pm	KNI 2107	
	W 12:00pm - 1:50pm	KNI 2107	Lab

JOUR668K **Topics in Broadcasting and Electronic Media; Video Innovation**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR603. Recommended: JOUR661 or JOUR668X. NewsBIN focuses on the future of video journalism, from documentary to 360 videos. In the class, students can experiment with cinematic techniques, motion graphics, choose-your-own-adventure style videos and more. The class is heavily influenced by independent documentary filmmaking and video storytelling. Students will be required to contribute to a weekly behind-the-scenes vlog of our class documenting the work we do.

0101	Joshua Davidsburg	Seats (Total: 2)	
	Tu 2:00pm - 4:45pm	TWS 0222B	

JOUR668N **Topics in Broadcasting and Electronic Media; Advanced Photojournalism**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR670. This course will provide a deeper dive into the storytelling medium of photojournalism. Students will learn the skills necessary to tell in-depth, long-term stories through the use of still photography. Topics of discussion will include the history of photojournalism, changing approaches to the photo story/photo essay over time, how to approach a variety of potential subject matter and situations, finding long-term photo story projects and organizing images for a variety of digital and traditional formats.

0101	Timothy Jacobsen W 4:00pm - 6:45pm	Seats (Total: 2) KNI 2105

JOUR668X **Topics in Broadcasting and Electronic Media; Documentary Filmmaking**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR603 and JOUR620/JOUR660. Hands-on independent documentary production. From pre-production to distribution, the class will include field production, pitching, grant writing and more.

0101	Joshua Davidsburg TuTh 10:00am - 11:50am	Seats (Total: 1) TWS 0222B

JOUR670 **Photojournalism**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: JOUR504. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism; and permission of JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR 368P, JOUR 370 or JOUR 670. Additional information: Students are required to borrow, rent or purchase a 35mm digital camera. Contact department for camera specifications.

Examining the basics of shooting, editing and storytelling with still photos taken with 35mm digital cameras. Students shoot portraits, feature photos and action shots. Final project is a photo story/essay.

0301	Timothy Jacobsen F 12:00pm - 2:45pm	Seats (Total: 1) KNI 1101

JOUR689O **News Coverage of Specialized Topics; Reporting the Election of '22 -- Daily Journalism Under Pressure**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advance training and practice in writing and reporting news in on specialized field of interest.

Prerequisite: JOUR620/JOUR660. We will study the daily coverage of the 22 election, analyzing the differences in reporting by three networks. This emphasizes reporting, critical thinking, and journalistic judgements. It studies competitive television news coverage but is not a television course. The reporting will center on politics but will not overlook other major stories. Who controls the Senate and House will determine the course of the Biden presidency.

0101	Tom Bettag	Seats (Total: 4)
	M 10:00am - 12:30pm	KNI 1109

JOUR698 **Special Problems in Communication**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit

Independent study in area of the student's interest.

Contact department for information to register for this course.

JOUR698I **Special Problems in Communication; Advanced Public Affairs Reporting/Investigative Journalism**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Independent study in area of the student's interest.

Prerequisites: JOUR501. Students will learn the essentials of accountability reporting while producing a publishable, in-depth project on an issue with national significance and impact on people's lives. Substantial fieldwork, teamwork and persistence are required.

0101	Deborah Nelson	Seats (Total: 8)
	Contact instructor or department for details.	

JOUR702 **Journalism Law and Ethics**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in one of the following programs (Journalism - Master (Master's); Journalism Studies (Doctoral)) ; or permission of JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR400, JOUR 600, JOUR700, or JOUR 702.

An examination of the legal rights and ethical problems and constraints of mass media, including libel, privacy, copyright, monopoly and contempt.

0101	Christoph Mergerson	Seats (Total: 1)
	TuTh 3:30pm - 4:45pm	KNI 1208

JOUR772 **Data Journalism**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Must have completed JOUR502, or students who have taken courses with comparable content may contact the department. Jointly offered with: JOUR472. Credit only granted for: JOUR772 or JOUR472.

A practical, skills-based course in the basics of modern data journalism, data literacy and data storytelling. Students will learn to use data visualization, data analysis and other data-driven reporting techniques.

Students must contact Associate Dean Rafael Lorente (rlorente@umd.edu) for permission to register.

0101	Derek Willis	Seats (Total: 11)	
	Tu 12:00pm - 1:50pm	KNI 1101	
	Th 12:00pm - 1:50pm	KNI 1101	Lab
0201	Derek Willis	Seats (Total: 9)	
	Tu 3:00pm - 4:50pm	KNI 1101	
	Th 3:00pm - 4:50pm	KNI 1101	Lab

JOUR776 **Qualitative Research Methods in Journalism and Public Communication**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: JOUR711 or JOUR776. Formerly: JOUR711.

Methods of historical, critical and field research in journalism and public communication. Formulation of significant research questions, systematic collection of bibliographic and phenomenal information, formulating substanial claims, organizing and writing research for disciplinary outlets.

0101	Linda Steiner	Seats (Total: 7)
	W 9:00am - 11:45am	KNI 2109

JOUR779K **Seminar in Research Problems; Activism, Social Movements and Alternative Media**

Credits: 3 Grading Method: Regular, Audit

Methods of research design and analysis in specialized areas of journalism and public communication research.

In this course, we will examine several aspects of activism and social movements as it relates to the creation of alternative journalism, oppositional art, connective action and citizen voice. We will explore the media of historic social movements such as the Women's suffrage and Civil Rights movements as well as movements of the current epoch including Black Lives Matter and the youth climate movements. We will also study community journalism, alternative journalism and other forms of value-laden reportage that privilege the citizens vantage point. Additionally, students will learn how technological affordances shape alternative and oppositional media and how these affordances inform specific media designs and aesthetics. The final project for this coursewill be a journal length manuscript that examines a recent example of media practices and/or media artifacts by a social movement, community newspaper or alternative publication.

0101	Krishnan Vasudevan M 9:00am - 11:45am	Seats (Total: 7) KNI 2109

JOUR798 **Master's Professional Fieldwork**

(Perm req)

Credits: 2-6 Grading Method: Sat-Fail

Research for and preparation of news articles or programs for use in the media. Analysis of fieldwork experience using communication theory and research results. Fieldwork may be done independently or as an internship. Repeatable to a maximum of six credits.

Contact department for information to register for this course.

JOUR799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

JOUR801 **Advanced Public Communication Theory**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: JOUR601, or students who have taken courses with comparable content may contact the department.

Advanced selected survey of communication & media theory.

0101	Susan Moeller Tu 9:00am - 11:45am	Seats (Total: 8) KNI 2109

JOUR888 **Doctoral Professional Field Work**

Credits: 3-9 Grading Method: Regular, Audit

Critical analysis of a phase of a professional field in journalism and public communication. Analysis of professional activity through personal observation. Evaluation of the purpose, process, effectiveness, and efficiency of professional activity. Recommendations for training and further research.

Contact department for information to register for this course.

JOUR889 **Doctoral Tutorial in Journalism and Public Communication**

Credits: 3-9 Grading Method: Regular, Audit

Individual research in journalism and public communication.

Contact department for information to register for this course.

JOUR898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

JOUR899 **Doctoral Dissertation Research in Journalism and Mass Communication**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

JWST Jewish Studies Spring 2022

JWST219C **Special Topics in Jewish Studies; Contemporary Israel**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

JWST219D **Special Topics in Jewish Studies; Women in Israel**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

JWST219E **Special Topics in Jewish Studies; Writing Israel**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

JWST219F **Special Topics in Jewish Studies; Written and Oral Storytelling in the Jewish Tradition**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Crosslisted with TDPS258W and ISRL249B. Credit only granted for ISRL249B, TDPS258W, or JWST219F. This course will focus on the evolution of the role of the story-telle as a mediator between fiction and truth, with some emphasis on Jewish and Israeli literature. Students will read and analyze short stories i the first part of the course, and then create a workshop in which they will present their own.

0101	Yael Inbar	Seats (Total: 15)
	TuTh 11:30am - 12:45pm	PAC 2740

JWST219J **Special Topics in Jewish Studies; Bagel, Lox, Action: The Construction of Jewishness on Screen**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listing with CINE298J. Credit only granted for JWST219J or CINE298J. This course will examine the ways in which filmmakers have used the cinematic medium to construct Jewish identity, and the different ways Jews and Jewishness have been represented in cinema over time. We will investigate different types of representations of Jews, asking how they operate in broader social context and film traditions. Our goal will be to critically engage with the films and to grapple with such questions as: How is Jewishness defined by film creators? What are the points of linkage and rupture between the various films? Are Jewish films, if such a category exists, the product of a marginalized minority? How do definitions of ethnic film help analyze Jewish film? Can non-Jewish filmmakers create Jewishness on screen?

0101	Adi Mahalel	Seats (Total: 30)
	Tu 3:30pm - 6:00pm	ONLINE

JWST225 **Religions of the Ancient Near East**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Cross-listed with: RELS225, HIST219I. Credit only granted for: JWST225, HIST219I, RELS225, or RELS219A. Formerly: RELS219A.

Introduction to ancient Near Eastern religious systems and mythology, from the third millennium BCE through the fourth century BCE. Particular emphasis on Mesopotamia and ancient Israel.

0101	Matthew Suriano	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	LEF 1220

JWST262 **Introduction to the Hebrew Bible/Old Testament**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HL	General Education: DSHU

Cross-listed with: ENGL262, HEBR298B. Credit only granted for: JWST262, HEBR293B, or ENGL262.

Origins of the Hebrew Bible (Old Testament), with attention to literary formations, archaeology, and social-political settings. Explorations of major questions, including who wrote the Bible, and when; relationships of the biblical tradition to the mythology and religious structures of ancient Israel's near eastern neighbors; and dynamics of politics, religious leadership, and law.

Contact department for information to register for this course.

JWST275 **Urban Dreams and Nightmares: The Jewish Experience of Cities**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SH, D	General Education: DSHS, DVUP

Cross-listed with: HIST286. Credit only granted for: HIST286 or JWST275.

Cities give expression to man's power while they highlight human limitations. It is urban social diversity that makes great wealth and thriving culture possible, but it also fixes discrimination behind walls constructed from paper and stone. Nations make cities symbols of the sacred and the glorious, while they ignore the poverty and social alienation that city life breeds. Jews, intensively urbanized for millennia, provide a special vantage point from which to study the beauty and the tragedy implicit in city-building. Our sources will include the Bible, poems, plays and novels but also US Supreme Court rulings and news of riots in Israel. We will survey how Jews have shaped, and been shaped by, the urban challenge over time and space.

0101	Bernard Cooperman	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	KEY 1117

JWST319B **Special Topics in Jewish Studies; Arab-Israeli Relations**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit

Topics in Jewish Studies.

Contact department for information to register for this course.

JWST319E **Special Topics in Jewish Studies; Literature of the Shoah**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit

Topics in Jewish Studies.

Contact department for information to register for this course.

JWST319K **Jewry of Muscle: Zionism and Jewish Masculinity**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Cross-listed with: ISRL329K. Credit only granted for: JWST319K or ISRL329K.

Cross-listed with ISRL329K. Credit only granted for JWST319K or ISRL329K. Part of the Zionist cultural project involved creating a new Jewish masculinity that would replace the diasporic "sissy Jew" with a strong, healthy new "Jewry of Muscle." Using literary and cinematic sources, we will analyze how these Zionist and Israeli cultural productions served to build (and sometimes undermine) this new model of Jewish masculinity.

0101	Shirelle Doughty	Seats (Total: 43)
	Class time/details on ELMs	ONLINE

JWST319O **Special Topics in Jewish Studies; Readings in Yiddish, Literature and Culture**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Topics in Jewish Studies.

This is a Big Ten Academic Alliance Course-Share Course. Crosslisting with GERM399R. Credit only granted for JWST319O, GERM399R or JWST419Y. This course provides students with a unique chance to improve their Yiddish speaking, reading, and writing skills. In addition to touching on key grammar points, we explore texts written by classic Yiddish authors such as Sholem Aleichem, S.Y. Abramovitsch, I.L. Peretz, I.B. Singer, and contemporary. The final grade will be determined according to class participation, short essays, and a presentation. This course requires proficiency in a foreign language.

0101	Adi Mahalel	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	ONLINE

JWST319P **Special Topics in Jewish Studies; Social Innovation, Change, and Justice: Do Good Now**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Topics in Jewish Studies.

Cross-listed with ARHU380. For Spring 2022: Credit granted only for JWST319P, ARHU380, BSOS388B, or PLCY388D. The course serves as the core course for the Arts-and-Humanities track in PLCY's minor in "Nonprofit Leadership and Social Innovation." Students will be introduced to the role that the Arts and Humanities can play in social innovation and social change, while exploring various mechanisms for achieving impact with a focus on advancing social justice, equity and systems change. This course deepens understandings of nonprofit leadership, entrepreneurship and social innovation by guiding students through the creation and implementation of social change projects and ventures of their choice.

0101	Lauren Kotkin Tu 6:00pm - 8:30pm	Seats (Total: 15) KEY 0100

JWST324 **Biblical History and Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: HIST321. Credit only granted for: HIST321, or JWST324.

Study of the political, social, and religious development of the Jewish nation from its inception to its return from exile in Babylonia around 536 C.E. Focus on biblical texts, archeological finds, and source materials from neighboring cultures to reconstruct political history and the development of religious concepts.

0101	Matthew Suriano TuTh 2:00pm - 3:15pm	Seats (Total: 25) SQH 2120

JWST331 **Early Christianity: Jesus to Constantine**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: HIST320. Credit only granted for: HIST320 or JWST331.

Social and religious history of early Christianity from its origin in the first century to the reign of Constantine.

Cross-listed with HIST320. Credit granted for JWST331 or HIST320.

0101	Elizabeth Conner TuTh 11:00am - 12:15pm	Seats (Total: 40) AJC 2132

JWST345 **The Holocaust of European Jewry**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: HIST307. Credit only granted for: HIST307 or JWST345.

Roots of Nazi Jewish policy in the 1930's and during World War II: the process of destruction and the implementation of the "final solution of the Jewish problem" in Europe, and the responses made by the Jews to their concentration and annihilation.

0101	Marsha Rozenblit	Seats (Total: 40)
	TuTh 9:30am - 10:45am	KEY 0126

JWST369J **Special Topics in Study Abroad III; Contemprary Jewish Thought**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

JWST386 **Experiential Learning in Jewish Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ARHU-Meyerhoff Program & Center for Jewish Studies. Restriction: Junior standing or higher.

The Jewish Studies Program's internship program. Pre-professional experience in research, analysis, and writing related to Jewish Studies in a variety of work settings.

0101	Instructor: TBA	Seats (Total: 5)
	Contact instructor or department for details.	

JWST408 **Honors Seminar in Jewish Studies**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An in-depth exploration of a theme in Jewish history, literature, culture or thought. Course subject and readings will vary from year to year, but will generally cut across periods, locations, or disciplines. Students are expected to engage the course material critically and to use the seminar as an opportunity to develop an independent research agenda.

Contact department for information to register for this course.

JWST409 **Research Seminar in Jewish Studies**

(Perm req)

Credits: 3-4 Grading Method: Regular, Pass-Fail, Audit

A capstone course for Jewish Studies. Guides students through advanced source material and subject matter, research skills, and presentation techniques. A substantive paper based on independent research and analysis is one expected outcome.

Contact department for information to register for this course.

JWST409G **Research Seminar in Jewish Studies; Jewish Women in Modernity**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A capstone course for Jewish Studies. Guides students through advanced source material and subject matter, research skills, and presentation techniques. A substantive paper based on independent research and analysis is one expected outcome.

Cross-listed with HIST418F. Credit only granted for HIST418F or JWST409G.

0101	Marsha Rozenblit Tu 2:00pm - 4:30pm	Seats (Total: 15) TLF 2100

JWST418 **Honors Thesis Research in Jewish Studies**

(Perm req)

Credits: 3 Grading Method: Regular

Guided research on a thesis under the supervision of the Jewish Studies faculty.

Contact department for information to register for this course.

JWST429M **Advanced Topics in Jewish Studies; American Jewry and Public Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics at an advanced level for Jewish Studies. Primarily intended for majors and graduate students.

Jointly offered with GVPT368N. Credit only granted for JWST429M or GVPT368N. An examination of the contours of American Jewry and its engagement in public policy. Focus will be on historical development, Jewish political thought, organizational and representation structures. Areas of specific concern include Israel and foreign policy, as well as domestic topics, including electoral politics. A number of in- depth case studies will be examined.

0101	Scott Lasensky Tu 4:00pm - 6:30pm	Seats (Total: 40) TYD 0111

JWST459 **Readings in Medieval Hebrew**

(Perm req)

Credits: 3-4

Grading Method: Regular, Pass-Fail, Audit

Readings and analysis of Hebrew texts and literature from the Middle Ages. Language of instruction in English; all texts in Hebrew.

Contact department for information to register for this course.

JWST468 **Readings in the Hebrew Bible**

(Perm req)

Credits: 3-4

Grading Method: Regular, Pass-Fail, Audit

Readings in the Hebrew text of the Bible. Emphasis in close reading, grammar analysis, and modern interpretations of the Bible. Language of instruction English; all texts in Hebrew.

Contact department for information to register for this course.

JWST469 **Readings in Rabbinic Hebrew**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Readings in classical rabbinic texts and related corpora. Emphasis on grammar and reading skills as well as critical analysis of the material. Language of instruction: English; all texts in original language.

Knowedge of Hebrw and/or permission of Instructor. Readings in Classical Rabbinic Texts and related corpora. Emphasis on grammar and reading skills as well as critical analysis of the material. Language of instruction: English; all texts

Contact department for information to register for this course.

JWST478 **Readings in Modern Hebrew**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Variable topics in Modern Hebrew Literature.

Contact department for information to register for this course.

JWST499 **Independent Study in Jewish Studies; Independent Study in Jewish Studies**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: permission of department.

Contact department for information to register for this course.

JWST609 **Supervised Instruction-Practicum in Jewish Studies**

(Perm req)

Credits: 1

Grading Method: Sat-Fail

Supervised instruction or supervised practicum in Jewish Studies. Intended for graduate students whose course work includes field work or classroom teaching.

Contact department for information to register for this course.

JWST619 **Directed Readings in Jewish Studies**

(Perm req)

Credits: 3 Grading Method: Regular

Independent Study in Jewish Studies. Readings and papers.

Contact department for information to register for this course.

JWST648 **Readings in Jewish History**

(Perm req)

Credits: 3 Grading Method: Regular

Focus on the central issues in Jewish history as well as the key historiographical debates on those issues.

Prerequisite: permission of department. Repeatable to 9 credits if content differs. Focus on the central issues in Jewish history as well as the key historiographical debates on those issues.

Contact department for information to register for this course.

JWST658 **Readings in Jewish Thought and Culture**

(Perm req)

Credits: 3 Grading Method: Regular

Examines key issues in the development of Jewish thought and culture.

Prerequisite: permission of department. Repeatable to 9 credits if content differs. Examines key issues in the development of Jewish thought and culture.

Contact department for information to register for this course.

JWST678 **Readings in Jewish Literature**

(Perm req)

Credits: 3 Grading Method: Regular

Examines selected themes or literatures in the development of Jewish literary traditions.

Prerequisite: permission of department. Repeatable to 9 credits if content differs. Examines selected themes on literatures in the development of Jewish literary traditions.

Contact department for information to register for this course.

JWST699 **Independent Graduate Readings in Jewish Studies**

Credits: 1-3 Grading Method: Regular

Independent readings or guided research in a field of Jewish Studies with a member of the Jewish Studies graduate faculty.

Contact department for information to register for this course.

JWST799 **Masters Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Research and Writing the Masters Thesis in Jewish Studies.

Prerequisite: permission of department.

Contact department for information to register for this course.

KNES Kinesiology Spring 2022

KNES120A **Fitness Walking**

Credits: 1 Grading Method: Regular, Pass-Fail

This is a co-ed physical activity course for beginning fitness walking.

Attendance is required on the first day of class. Students must pay a $40 instructional materials fee. Restricted to students in KNES major.

0101	Andrew Ginsberg	Seats (Total: 30)	
	Class time/details on ELMs	ONLINE	
	Class time/details on ELMs	ONLINE	Lab
0102	Andrew Ginsberg	Seats (Total: 30)	
	Class time/details on ELMs	ONLINE	
	Class time/details on ELMs	ONLINE	Lab
0103	Andrew Ginsberg	Seats (Total: 30)	
	Class time/details on ELMs	ONLINE	
	Class time/details on ELMs	ONLINE	Lab
0104	Andrew Ginsberg	Seats (Total: 30)	
	Class time/details on ELMs	ONLINE	
	Class time/details on ELMs	ONLINE	Lab

KNES131V **Physical Education Activities: Coed; Jogging (Beginning)**

Credits: 2 Grading Method: Regular, Pass-Fail

Attendance is required on the first day of class. Students must pay a $40 instructional materials fee. Restricted to students in KNES major.

0101	Andrea Liberto	Seats (Total: 30)	
	Class time/details on ELMs	ONLINE	
	Class time/details on ELMs	ONLINE	Lab
0102	Andrea Liberto	Seats (Total: 30)	
	Class time/details on ELMs	ONLINE	
	Class time/details on ELMs	ONLINE	Lab
0103	Andrea Liberto	Seats (Total: 30)	
	Class time/details on ELMs	ONLINE	
	Class time/details on ELMs	ONLINE	Lab

KNES132N **Physical Education Activities: Coed; Badminton (Beginning)**

Credits: 1 Grading Method: Regular, Pass-Fail

Attendance is required on the first day of class. Schedule adjustment is the first week of class only. Students must pay a $40.00 instructional materials fee. Restricted to students in KNES major.

0101	Andrew Ginsberg	Seats (Total: 24)	
	Meets January 24, 2022 - March 11, 2022		
	MW 12:00pm - 2:00pm	SPH 2101	Lab
0102	Andrew Ginsberg	Seats (Total: 24)	
	Meets January 24, 2022 - March 11, 2022		
	MW 10:00am - 12:00pm	SPH 2101	Lab

KNES144Q **Physical Education Activities: Coed; Martial Arts, Karate (Beginning)**

Credits: 2 Grading Method: Regular, Pass-Fail

Attendance is required on the first day of class. Students must pay a $40.00 instructional materials fee.

0101	Kenneth Klotz	Seats (Total: 35)	
	MW 10:00am - 12:00pm	SPH 0107	Lab

KNES144R **Physical Education Activities: Coed; Martial Arts, Karate (Intermediate)**

Credits: 2 Grading Method: Regular, Pass-Fail

Attendance is required on the first day of class. Students must pay a $40.00 instructional materials fee

0101	Michael Dorothy	Seats (Total: 35)	
	TuTh 9:00am - 11:00am	SPH 0107	

KNES144T Physical Education Activities: Coed; Self-Defense

Credits: 2 Grading Method: Regular, Pass-Fail

Attendance is required on the first day of class. Students must pay a $40.00 instructional materials fee.

0101	Kenneth Klotz	Seats (Total: 35)	
	MW 8:00am - 10:00am	SPH 0107	Lab

KNES152N Physical Education Activities: Coed; Soccer (Beginning)

Credits: 1 Grading Method: Regular, Pass-Fail

Students must pay $40 instructional materials fee. Restricted to students in KNES major.

0201	Kiersten Janjigian	Seats (Total: 24)	
	Meets March 28, 2022 - May 10, 2022		
	MW 10:00am - 12:00pm	SPH 2101	Lab
0202	Kiersten Janjigian	Seats (Total: 24)	
	Meets March 28, 2022 - May 10, 2022		
	MW 12:00pm - 2:00pm	SPH 2101	Lab

KNES154O Physical Education Activities: Coed; Swimming (Intermediate)

Credits: 1 Grading Method: Regular, Pass-Fail

Attendance is required on the first day of class. Students must pay a $40.00 instructional materials fee.

0101	Natalie Taylor	Seats (Total: 22)	
	MW 1:00pm - 2:15pm	ERC B0120	Lab

KNES154T Physical Education Activities: Coed; Swimming, Fitness (Intermediate)

Credits: 1

Grading Method: Regular, Pass-Fail

Attendance is required on the first day of class. Students must pay a $40.00 instructional materials fee.

0101	Ronald Willoughby	Seats (Total: 22)	
	TuTh 9:30am - 10:45am	ERC B0120	Lab

KNES161N **Physical Education Activities: Coed; Conditioning (Beginning)**

Credits: 1

Grading Method: Regular, Pass-Fail

Attendance is required on the first day of class. Students must pay a $40 instructional materials fee. Restricted to students in KNES major.

0101	Jo Zimmerman	Seats (Total: 30)	
	Class time/details on ELMs	ONLINE	
	Class time/details on ELMs	ONLINE	Lab
0102	Jo Zimmerman	Seats (Total: 30)	
	Class time/details on ELMs	ONLINE	
	Class time/details on ELMs	ONLINE	Lab

KNES161T **Physical Education Activities: Coed; Yoga**

Credits: 1

Grading Method: Regular, Pass-Fail

Attendance on the first day of class is mandatory. Students must pay a $40.00 instructional materials fee.

0101	Kate Shin	Seats (Total: 30)	
	Meets January 24, 2022 - March 18, 2022		
	TuTh 11:00am - 1:00pm	SPH 0107	Lab
0201	Kate Shin	Seats (Total: 30)	
	Meets March 28, 2022 - May 10, 2022		
	TuTh 11:00am - 1:00pm	SPH 0107	Lab

KNES200 **Introduction to Kinesiology**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be a Kinesiology major within first 2 semesters; or must not be in Kinesiology program and have less than 60 credits. Credit only granted for: KNES200 or KNES201.

Kinesiology is the interdisciplinary study of physical activity that includes seven sub-disciplines: 1) exercise physiology; 2) biomechanics; 3) sport psychology; 4) motor development; 5) motor control; 6) sport history; and 7) sport sociology. This course will examine these areas of study within Kinesiology from scientific and applied perspectives.

0101	Andrea Liberto Tu 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 24) SPH 1312 ONLINE
0102	Andrea Liberto Tu 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 8) SPH 1312 ONLINE
0103	Andrea Liberto Th 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 24) Location: TBA ONLINE
0104	Andrea Liberto Th 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 8) SPH 1312 ONLINE

KNES201 **Kinesiological Principles of Physical Activity**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Corequisite: Any physical activity course, e.g., KNES 100-190; or permission of SPHL-Kinesiology department. Restriction: Must be in a major in SPHL-School of Public Health. Credit only granted for: KNES200 or KNES201.

An introduction to Kinesiology, the study of human movement, through the experience of learning a specific motor skill or being engaged in physical activity. Emphasis on the theories and knowledge underlying the learning and performance of all motor and sport skills.

0101	Andrea Liberto **Meets January 24, 2022 - March 18, 2022** M 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 25) CCC 1200 ONLINE

0201	Kathryn Costello	Seats (Total: 25)	
	Meets March 28, 2022 - May 10, 2022		
	M 11:00am - 11:50am	CCC 1105	
	Class time/details on ELMs	ONLINE	

KNES214 **Science and Methods of Personal Fitness Instruction**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Credit only granted for: KNES214 or KNES210 and KNES211, or KNES210 and KNES212, or KNES289N. Formerly: KNES210/KNES211, KNES210/KNES212, and KNES289N.

Basic concepts of human anatomy, exercise physiology, applied kinesiology, nutrition and the physiology of exercise training. Includes the CORE knowledge required for the American Council on Exercise (ACE) Personal Trainer certification.

0101	Rosemary Lindle	Seats (Total: 24)	
	Class time/details on ELMs	ONLINE	
	M 9:00am - 10:50am	SPH 0103	Lab
0102	Rosemary Lindle	Seats (Total: 24)	
	Class time/details on ELMs	ONLINE	
	W 9:00am - 10:50am	SPH 0103	Lab

KNES225 **Hoop Dreams: Black Masculinity and Sport**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Credit only granted for: KNES289R OR KNES225. Formerly: KNES289R.

Has sport disadvantaged African American males? This course critically examines sport as a site where notions of black masculinity are publicly debated, critiqued, challenged, celebrated, and also transformed. Utilizing an interdisciplinary approach, this course explores how sport has been invoked across the political and ideological spectrum to interrogate a number of issues impacting the life chances of young, African Americans males including educational attainment, poverty, social mobility, racism, cultural production, and notions of masculinity.

0101	Brandon Wallace	Seats (Total: 80)	
	TuTh 5:00pm - 6:15pm	ATL 2400	

KNES226 **The Cybernetic Human**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSNS, SCIS

Credit only granted for: KNES289W OR KNES226. Formerly: KNES289W.

Can the profound and rapid technological advances experienced in the 21st century change what it means to be human or the nature of humanity? Emergent technologies, new materials, increased computer power, engineering innovations, and groundbreaking work in the sciences of cognition and action provide myriad opportunities for repairing and enhancing the human body and brain. Examines the ethical, social, and technological implications of an increasing synergism of technology and the body in sports and the arts, at work or home, rehabilitating the body and the brain, and society at large.

0101	Tim Kiemel MF 2:00pm - 2:50pm W 2:00pm - 2:50pm	Seats (Total: 20) EGR 1202 ATL 2416	Discussion
0102	Tim Kiemel MF 2:00pm - 2:50pm W 1:00pm - 1:50pm	Seats (Total: 20) EGR 1202 ATL 2316	Discussion
0103	Tim Kiemel MF 2:00pm - 2:50pm W 12:00pm - 12:50pm	Seats (Total: 20) EGR 1202 ATL 2316	Discussion
0104	Tim Kiemel MF 2:00pm - 2:50pm W 11:00am - 11:50am	Seats (Total: 20) EGR 1202 ATL 2316	Discussion
0105	Tim Kiemel MF 2:00pm - 2:50pm W 1:00pm - 1:50pm	Seats (Total: 20) EGR 1202 ATL 2352	Discussion
0106	Tim Kiemel MF 2:00pm - 2:50pm W 2:00pm - 2:50pm	Seats (Total: 20) EGR 1202 ATL 2352	Discussion

KNES235 Swimming Pool Management

Credits: 2 | Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: KNES235 or KNES335. Formerly: KNES335.

Analysis of the position of the swimming pool manager. The systematic treatment of swimming pool water; swimming pool first aid; and laws pertaining to swimming pool operation. Qualifies the student for a pool operator's license in most Maryland counties.

0101	John Felts TuTh 11:00am - 12:15pm	Seats (Total: 35) ERC B0136E	

KNES246 **Transformational Leader in Sport: The Art and Science of Coaching**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSSP

Highlights the expectations and ethical problems facing developmental sport programs and youth athletic coaches today. Explores the continuum of coaching from Buttermaker (Bad News Bears) to Belichick (New England Patriots). We first examine the issues of sports, physical inactivity and obesity from a physiological, psychological, social, political, and economic perspective. Next, we will focus on how transformational leadership behaviors, knowledge, and communication influence changes in intrapersonal, interpersonal, and environmental aspects. Finally, we will employ a practical, manageable method for coaches to develop their athletes and programs.

0101	Jay Goldstein MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 15) ATL 1434 SPH 2101	 Discussion
0102	Jay Goldstein MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 15) ATL 1434 SPH 2101	 Discussion

KNES282 **Basic Care and Prevention of Athletic Injuries**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Must be in a major within the SPHL-Kinesiology department. Credit only granted for: KNES282 or KNES381.

Theoretical and practical foundations of the prevention, treatment and rehabilitation of athletically related injuries. Topics include: physical conditioning, preventive taping, recognition of injuries, first aid and CPR.

0101	Joanne Klossner TuTh 2:00pm - 3:15pm	Seats (Total: 36) CCC 1111	

KNES285 **History of Physical Culture, Sport, & Science in America**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	General Education: DSHU, DVUP

Restriction: Restricted to majors or non-majors with less than or equal to 60 credits. Credit only granted for: KNES285 or KNES293.

Examines the history of physical culture in America, focusing on the period from the end of the Civil War to the Cold War. Physical culture refers to a broad range of movement practices including sport, play, rehabilitative exercise, health and fitness training, and recreation and leisure. More specifically, we challenge the idea that historical physical culture practices--and the scientific processes from which they were derived--were 'neutral' or 'objective'; rather, we explore the cultural, social, political, and economic contexts shaping physical culture knowledge, study, structures, and policies across American history. The goal is for you to learn and apply techniques of historical analysis to develop a critical understanding of how knowledge about, and practices of, physical culture supported a particular social order via the construction of difference, norms, and/or hierarchies, and ultimately contributed to some of the inequalities that endure today.

0101	Shannon Jette MW 10:00am - 10:50am W 12:00pm - 12:50pm	Seats (Total: 22) SPH 1312 ATL 0201	Discussion
0102	Shannon Jette MW 10:00am - 10:50am W 1:00pm - 1:50pm	Seats (Total: 22) SPH 1312 ATL 0201	Discussion
0103	Shannon Jette MW 10:00am - 10:50am W 2:00pm - 2:50pm	Seats (Total: 22) SPH 1312 ATL 2316	Discussion
0104	Shannon Jette MW 10:00am - 10:50am W 3:00pm - 3:50pm	Seats (Total: 22) SPH 1312 ATL 2316	Discussion
0105	Shannon Jette MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 22) SPH 1312 ATL 0201	Discussion
0106	Shannon Jette MW 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 22) SPH 1312 ATL 0201	Discussion

KNES287 Sport and American Society

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB, D | General Education: DSHS, DVUP

Recommended: Minimum grade of C- in KNES285.

Sport will be related to such social problems as delinquency, segregation, collective behavior, and leisure; to social processes such as socialization, stratification, mobility, and social control; and to those familiar social institutions the family, the school, the church, the military, the economy, the polity, and the mass media.

Restricted to majors or non-majors with less than or equal to 45 credits.

0101	Ronald Mower MW 11:00am - 11:50am M 8:00am - 8:50am	Seats (Total: 22) SPH 1312 SPH 0225	Discussion
0102	Ronald Mower MW 11:00am - 11:50am M 9:00am - 9:50am	Seats (Total: 22) SPH 1312 SPH 0225	Discussion
0103	Ronald Mower MW 11:00am - 11:50am M 10:00am - 10:50am	Seats (Total: 22) SPH 1312 SPH 0225	Discussion
0104	Ronald Mower MW 11:00am - 11:50am M 1:00pm - 1:50pm	Seats (Total: 22) SPH 1312 SPH 0116A	Discussion
0105	Ronald Mower MW 11:00am - 11:50am M 12:00pm - 12:50pm	Seats (Total: 22) SPH 1312 SPH 0225	Discussion
0106	Ronald Mower MW 11:00am - 11:50am M 3:00pm - 3:50pm	Seats (Total: 22) SPH 1312 SPH 0223	Discussion

KNES289 **Topical Investigations**

(Perm req)

Credits: 1-3 | Grading Method: Regular, Pass-Fail

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Prerequisite: permission of department.

Contact department for information to register for this course.

KNES289F **Topical Investigations; Foundations of Food, Physical Activity, & Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Explore the basics of nutrition, activity & exercise, and human health. What is a calorie? What is metabolic rate? How do our daily activities alter our metabolism? What are the short- and long-term benefits of exercise? How do equity and access to food and physical activity affect health? Is sedentary behavior a greater health risk than being overweight?

0101	Sarah Glancy	Seats (Total: 30)
	MW 9:00am - 9:50am	CCC 1200
	Class time/details on ELMs	ONLINE

KNES293 **History of Sport in America**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SH General Education: DSHS

The growth and development of sport in America. The transformation of sport within the perspective of American history, including class sport, professionalization, amateurism, and international involvement.

Contact department for information to register for this course.

KNES300 **Biomechanics of Human Motion**

Credits: 4 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in BSCI201. And 1 course with a minimum grade of C- from (MATH112, MATH113, MATH115); or (must have completed one General Education: Fundamental Studies-Math course with a minimum grade of C-; and must have math eligibility of MATH140 or higher). Recommended: PHYS121. Restriction: Must be in a major within SPHL-Kinesiology department.

The study of human movement and the physical and physiological principles upon which it depends. Body mechanics, posture, motor efficiency, sports, the performance of a typical individual and the influence of growth and development upon motor performance.

Students must pay a $50.00 lab fee.

0101	Ross Miller	Seats (Total: 18)	
	MW 3:00pm - 4:15pm	SPH 1312	
	Tu 8:00am - 9:50am	SPH 0223	Lab

0102	Ross Miller MW 3:00pm - 4:15pm Tu 10:00am - 11:50am	Seats (Total: 18) SPH 1312 SPH 0223	 Lab
0103	Ross Miller MW 3:00pm - 4:15pm Tu 12:00pm - 1:50pm	Seats (Total: 18) SPH 1312 SPH 0223	 Lab
0104	Ross Miller MW 3:00pm - 4:15pm Tu 2:00pm - 3:50pm	Seats (Total: 18) SPH 1312 SPH 0223	 Lab
0106	Ross Miller MW 3:00pm - 4:15pm Th 10:00am - 11:50am	Seats (Total: 18) SPH 1312 SPH 0223	 Lab
0107	Ross Miller MW 3:00pm - 4:15pm Th 12:00pm - 1:50pm	Seats (Total: 18) SPH 1312 SPH 0223	 Lab

KNES300H **Biomechanics of Human Motion**

(Perm req)

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI201. And 1 course with a minimum grade of C- from (MATH112, MATH113, MATH115); or (must have completed one General Education: Fundamental Studies-Math course with a minimum grade of C-; and must have math eligibility of MATH140 or higher). Recommended: PHYS121. Restriction: Must be in a major within SPHL-Kinesiology department.

The study of human movement and the physical and physiological principles upon which it depends. Body mechanics, posture, motor efficiency, sports, the performance of a typical individual and the influence of growth and development upon motor performance.

Students must pay a $50.00 lab fee.

0101	Ross Miller MW 3:00pm - 4:15pm Class time/details on ELMs	Seats (Total: 3) SPH 1312 ONLINE	 Lab

KNES305 **Principles & Application of Exercise Rehabilitation**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI201 and BSCI202; and 1 course with a minimum grade of C- from (KNES300, KNES350, KNES360, KNES370, KNES385). Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES498T or KNES305. Formerly: KNES498T.

In-depth analysis of the basic principles of rehabilitation and exercise programming for common injuries encountered in a clinical setting. Basic assessment techniques, ranges of motion, muscular anatomy, rehabilitative protocols, and exercise modalities are a major focus.

0101	Larry Plotkin	Seats (Total: 30)
	TuTh 8:00am - 9:15am	ATL 1434

KNES305H **Principles & Application of Exercise Rehabilitation**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI201 and BSCI202; and 1 course with a minimum grade of C- from (KNES300, KNES350, KNES360, KNES370, KNES385). Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES498T or KNES305. Formerly: KNES498T.

In-depth analysis of the basic principles of rehabilitation and exercise programming for common injuries encountered in a clinical setting. Basic assessment techniques, ranges of motion, muscular anatomy, rehabilitative protocols, and exercise modalities are a major focus.

0101	Larry Plotkin	Seats (Total: 3)
	TuTh 8:00am - 9:15am	ATL 1434

KNES306 **Prosthetics for Limb Amputations**

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in BSCI201, BSCI202, and KNES300. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES306 or KNES498W. Formerly: KNES498W.

Introduction to the science of prosthetics and the artificial devices that are designed, developed and fit to replace the missing body part or parts lost through trauma, disease or congenital conditions.

0101	Douglas Collier	Seats (Total: 34)
	Th 8:00am - 10:30am	HBK 0109

KNES320 **Physiological Basis of Physical Activity and Human Health**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI201 and BSCI202. Restriction: Must be in Public Health Science program. Credit only granted for: KNES360 or KNES320.

A study of the responses and chronic adaptations to physical activity and exercise, with particular emphasis on the interaction between human health and physical activity. The laboratory component of course will focus on the assessment of physical activity and measurement of physiological adaptations to exercise. Students are expected to gain an understanding and appreciation for the benefits of physical activity and exercise in the context of public health.

Students must pay a $50.00 lab fee.

0101	Jeffrey Beans Th 4:00pm - 5:15pm Class time/details on ELMs M 12:00pm - 1:50pm	Seats (Total: 18) ESJ 2208 ONLINE SPH 0125	Lab
	Restricted to Public Health Science students at College Park.		
0102	Jeffrey Beans Th 4:00pm - 5:15pm Class time/details on ELMs M 2:00pm - 3:50pm	Seats (Total: 18) ESJ 2208 ONLINE SPH 0125	Lab
	Restricted to Public Health Science students at College Park.		
0103	Jeffrey Beans Th 4:00pm - 5:15pm Class time/details on ELMs W 8:00am - 9:50am	Seats (Total: 18) ESJ 2208 ONLINE SPH 0125	Lab
	Restricted to Public Health Science students at College Park.		
0104	Jeffrey Beans Th 4:00pm - 5:15pm Class time/details on ELMs W 10:00am - 11:50am	Seats (Total: 18) ESJ 2208 ONLINE SPH 0125	Lab
	Restricted to Public Health Science students at College Park.		

0105	Jeffrey Beans Th 4:00pm - 5:15pm Class time/details on ELMs W 12:00pm - 1:50pm *Restricted to Public Health Science students at College Park.*	Seats (Total: 18) ESJ 2208 ONLINE SPH 0125	Lab
0106	Jeffrey Beans Th 4:00pm - 5:15pm Class time/details on ELMs W 2:00pm - 3:50pm *Restricted to Public Health Science students at College Park.*	Seats (Total: 18) ESJ 2208 ONLINE SPH 0125	Lab
0107	Jeffrey Beans Th 4:00pm - 5:15pm Class time/details on ELMs F 10:00am - 11:50am *Restricted to Public Health Science students at College Park.*	Seats (Total: 18) ESJ 2208 ONLINE SPH 0125	Lab
0108	Jeffrey Beans Th 4:00pm - 5:15pm Class time/details on ELMs F 12:00pm - 1:50pm *Restricted to Public Health Science students at College Park.*	Seats (Total: 18) ESJ 2208 ONLINE SPH 0125	Lab

KNES332 **Exercise Testing & Prescription for Fitness Professionals**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES360. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES332 or KNES389G. Formerly: KNES389G.

Practical applications of exercise physiology and psychology to target fitness instruction for the general adult population Includes discussion of certification standards and professional development as well as evaluation of program safety and current trends.

0101	Jo Zimmerman WF 8:00am - 9:50am	Seats (Total: 25) ATL 2416	

KNES332H **Exercise Testing & Prescription for Fitness Professionals**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES360. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES332 or KNES389G. Formerly: KNES389G.

Practical applications of exercise physiology and psychology to target fitness instruction for the general adult population Includes discussion of certification standards and professional development as well as evaluation of program safety and current trends.

0101	Jo Zimmerman	Seats (Total: 2)
	WF 8:00am - 9:50am	ATL 2416

KNES334 **Adapted Physical Activity: Empowering People with Disabilities to Lead a Healthy and Active Lifestyle**

Credits: 3

Grading Method: Regular, Pass-Fail

General Education: DSSP, DVUP

Prerequisite: KNES370; or students not in the Kinesiology major may contact the instructor for permission. Restriction: Must have earned a minimum of 75 credits. Credit only granted for: KNES498L or KNES334. Formerly: KNES498L.

Study of the field of adapted physical activity and its impact on the health and wellness of individuals with disabilities. Students will design an adapted physical activity program proposal and develop the skills needed to empower people with disabilities to participate in physical activity and sports programs. Students will explore their own perceptions towards disability and how people with disabilities are portrayed in our society. They will study the etiology of disabling conditions and the implications for participating in physical activity.

Restricted to KNES majors only.

0101	Ana Palla	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

KNES346 **Sport for Development**

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: Must have earned a minimum grade of C- in KNES287. Recommended: KNES485. Restriction: Must be a major within the SPHL-Kinesiology department and must have earned a minimum of 75 credits. Credit only granted for: KNES389D or KNES346. Formerly: KNES389D.

Examines how sport-based programs and organizations are used by governments, multinational corporations, and non-government organizations (NGO's) to reach personal, community, national and international development objectives; focuses on theorizing the histories of international development and contemporary global issues; contextualizes the interrelationship of theory, institutions, and practices of domestic and international sport for development and peace programing.

0101	Ronald Mower W 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 34) ATL 1434 ONLINE

KNES350 **The Psychology of Sports & Exercise**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS

Restriction: Must have earned a minimum of 45 credits.

An exploration of personality factors, including but not limited to motivation, aggression and emotion, as they affect sports participation and motor skill performance.

Restricted to students with a minumum of 45 credits completed.

0101	Elizabeth Brown TuTh 2:00pm - 3:15pm *Restricted to KNES (08351) majors only.*	Seats (Total: 40) SPH 1312
0102	Elizabeth Brown TuTh 2:00pm - 3:15pm	Seats (Total: 30) SPH 1312
0103	J Carson Smith TuTh 9:30am - 10:45am *Restricted to KNES (08351) majors only.*	Seats (Total: 40) ANS 0408
0104	J Carson Smith TuTh 9:30am - 10:45am	Seats (Total: 30) ANS 0408

KNES350H **The Psychology of Sports & Exercise**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS

Restriction: Must have earned a minimum of 45 credits.

An exploration of personality factors, including but not limited to motivation, aggression and emotion, as they affect sports participation and motor skill performance.

Prerequisite: permission of department.

0101	Elizabeth Brown TuTh 2:00pm - 3:15pm	Seats (Total: 2) SPH 1312
0102	J Carson Smith TuTh 9:30am - 10:45am	Seats (Total: 3) ANS 0408

KNES355 **Sport Management**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES287. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES355 or KNES498M.

Application of concepts and issues related to management principles and business concerns across various sections of the sport industry. Principles pertaining to the management of sport organizations.

0101	Stephen McDaniel TuTh 12:30pm - 1:45pm	Seats (Total: 32) ANS 0402

KNES355H **Sport Management**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES287. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES355 or KNES498M.

Application of concepts and issues related to management principles and business concerns across various sections of the sport industry. Principles pertaining to the management of sport organizations.

0101	Stephen McDaniel TuTh 12:30pm - 1:45pm	Seats (Total: 3) ANS 0402

KNES360 **Physiology of Exercise**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI202 and BSCI201; or permission of SPHL-Kinesiology department. Restriction: Must be in one of the following programs (Kinesiology; Public Health Science).

A study of the physiology of exercise, including concepts of work, muscular contraction, energy transformation, metabolism, oxygen debt, and nutrition and athletic performance. Emphasis on cardiovascular and respiratory function in relation to physical activity and training.

Students must pay a $50.00 lab fee.

0101	Sushant Ranadive MWF 12:00pm - 12:50pm Tu 8:00am - 9:50am	Seats (Total: 18) SPH 1312 SPH 0125	 Lab
0102	Sushant Ranadive MWF 12:00pm - 12:50pm Tu 10:00am - 11:50am	Seats (Total: 18) SPH 1312 SPH 0125	 Lab
0103	Sushant Ranadive MWF 12:00pm - 12:50pm Tu 12:00pm - 1:50pm	Seats (Total: 18) SPH 1312 SPH 0125	 Lab
0104	Sushant Ranadive MWF 12:00pm - 12:50pm Tu 2:00pm - 3:50pm	Seats (Total: 18) SPH 1312 SPH 0125	 Lab
0106	Sushant Ranadive MWF 12:00pm - 12:50pm Th 10:00am - 11:50am	Seats (Total: 18) SPH 1312 SPH 0125	 Lab
0107	Sushant Ranadive MWF 12:00pm - 12:50pm Th 12:00pm - 1:50pm	Seats (Total: 18) SPH 1312 SPH 0125	 Lab

KNES360H **Physiology of Exercise**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI202 and BSCI201; or permission of SPHL-Kinesiology department. Restriction: Must be in one of the following programs (Kinesiology; Public Health Science).

A study of the physiology of exercise, including concepts of work, muscular contraction, energy transformation, metabolism, oxygen debt, and nutrition and athletic performance. Emphasis on cardiovascular and respiratory function in relation to physical activity and training.

Students must pay a $50.00 lab fee.

0101	Sushant Ranadive MWF 12:00pm - 12:50pm Contact instructor or department for details.	Seats (Total: 3) SPH 1312	
	Restricted to students in the Kinesiology major (code: 08351).		

KNES370 **Motor Development**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major within SPHL-Kinesiology department.

Motor development across the life span. The developmental sequences of motor skills from birth to old age; neuromaturation of neuromuscular system; analysis of the underlying mechanisms of motor skill development; and correlates of motor development.

0101	Tim Kiemel MW 3:00pm - 3:50pm M 8:00am - 8:50am	Seats (Total: 18) EGR 1202 SPH 0223	Discussion
0102	Tim Kiemel MW 3:00pm - 3:50pm M 9:00am - 9:50am	Seats (Total: 18) EGR 1202 SPH 0223	Discussion
0103	Tim Kiemel MW 3:00pm - 3:50pm M 10:00am - 10:50am	Seats (Total: 18) EGR 1202 SPH 0223	Discussion
0104	Tim Kiemel MW 3:00pm - 3:50pm M 11:00am - 11:50am	Seats (Total: 18) EGR 1202 SPH 0223	Discussion
0105	Tim Kiemel MW 3:00pm - 3:50pm M 12:00pm - 12:50pm	Seats (Total: 18) EGR 1202 SPH 0223	Discussion
0106	Tim Kiemel MW 3:00pm - 3:50pm M 1:00pm - 1:50pm	Seats (Total: 18) EGR 1202 SPH 0223	Discussion

KNES370H **Motor Development**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Restriction: Must be in a major within SPHL-Kinesiology department.

Motor development across the life span. The developmental sequences of motor skills from birth to old age; neuromaturation of neuromuscular system; analysis of the underlying mechanisms of motor skill development; and correlates of motor development.

Prerequisite: permission of department.

0101	Tim Kiemel MW 3:00pm - 3:50pm Class time/details on ELMs	Seats (Total: 2) EGR 1202 ONLINE	Discussion

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KNES385 **Motor Control and Learning**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI201; and a minimum grade of C- in the KNES program's Math Requirement (e.g. MATH113, 115, 140). Recommended: PHYS121 or KNES289P. Restriction: Must be in a major within SPHL-Kinesiology department.

This introductory course investigates how humans control and adapt their movements to perform and learn a variety of motor skills, ranging from activities of daily living to elite athlete performance. This course examines the underlying cognitive, sensory and motor processes of control and adaptation of human movements both at the behavioral and neurophysiological levels. Relevant applications to movement rehabilitation as well as performance optimization are employed to illustrate the concepts discussed in class. The cognitive, sensory and motor mechanisms underlying motor control are explored first and then in a motor learning context.

0101	Hyuk Oh MW 2:00pm - 2:50pm W 11:00am - 11:50am	Seats (Total: 18) SPH 1312 SPH 0223	Discussion
0102	Hyuk Oh MW 2:00pm - 2:50pm W 12:00pm - 12:50pm	Seats (Total: 18) SPH 1312 SPH 0223	Discussion
0103	Hyuk Oh MW 2:00pm - 2:50pm W 1:00pm - 1:50pm	Seats (Total: 18) SPH 1312 SPH 0223	Discussion

0106	Hyuk Oh MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 18) SPH 1312 SPH 0223	 Discussion
0107	Hyuk Oh MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 18) SPH 1312 SPH 0223	 Discussion
0108	Hyuk Oh MW 2:00pm - 2:50pm W 10:00am - 10:50am	Seats (Total: 18) SPH 1312 SPH 0223	 Discussion

KNES385H **Motor Control and Learning**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI201; and a minimum grade of C- in the KNES program's Math Requirement (e.g. MATH113, 115, 140). Recommended: PHYS121 or KNES289P. Restriction: Must be in a major within SPHL-Kinesiology department.

This introductory course investigates how humans control and adapt their movements to perform and learn a variety of motor skills, ranging from activities of daily living to elite athlete performance. This course examines the underlying cognitive, sensory and motor processes of control and adaptation of human movements both at the behavioral and neurophysiological levels. Relevant applications to movement rehabilitation as well as performance optimization are employed to illustrate the concepts discussed in class. The cognitive, sensory and motor mechanisms underlying motor control are explored first and then in a motor learning context.

Prerequisite: permission of department.

0101	Hyuk Oh MW 2:00pm - 2:50pm Class time/details on ELMs Class time/details on ELMs	Seats (Total: 4) SPH 1312 ONLINE ONLINE	 Discussion

KNES389 **Topical Investigations**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Prerequisite: permission of instructor and department. This class does NOT fulfill a KNES Options Requirement.

Contact department for information to register for this course.

KNES389K **Topical Investigations; Kinesiology Internship**

(Perm req)

Credits: 3 Grading Method: Regular

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Prerequisite: permission of instructor and department.

Contact department for information to register for this course.

KNES401 **Zip Code: Prediction of Physical Activity & Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in SPHL100. Restriction: Must have earned a minimum of 75 credits; and must be in a major within, SPHL-Kinesiology department. Credit only granted for: KNES401 or KNES498A. Formerly: KNES498A.

An exploration of the relationship and impacts of built and other social environments on health, including physical activity, social equity, gentrification, and many others.

0101	Jennifer Roberts	Seats (Total: 26)
	W 4:00pm - 6:30pm	SPH 0121

KNES401H **Zip Code: Prediction of Physical Activity & Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in SPHL100. Restriction: Must have earned a minimum of 75 credits; and must be in a major within, SPHL-Kinesiology department. Credit only granted for: KNES401 or KNES498A. Formerly: KNES498A.

An exploration of the relationship and impacts of built and other social environments on health, including physical activity, social equity, gentrification, and many others.

0101	Jennifer Roberts	Seats (Total: 2)
	W 4:00pm - 6:30pm	SPH 0121

KNES405 **Principles & Techniques of Manual Muscle Testing**

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in BSCI201 and BSCI202; and 1 course with a minimum grade of C- from Kinesiology core courses at the 300-level or higher. Additional information: This course emphasizes hands-on application of skills. Course participation is critical.

It is critical for sports medicine and sport performance specialists to understand the location and inter-relationships of the structures of the body that impact human movement. Thus, the primary purpose of this course is to facilitate an in-depth, understanding of the muscles of the body. Specifically, students will learn the origins, insertions, primary and secondary functions, as well as nervous innervations of the major muscle groups of the body. In addition, students will develop palpation skills and learn to grade the function of each muscle through manual muscle testing techniques. These skills form the foundation for assessing functional movement as well as performing safe and effective manual therapy techniques. Thus, while the focus of the class will be to develop sound, introductory palpation and manual muscle testing skills, basic principles of functional movement and manual therapy will also be addressed through hands-on application as well as case study.

0101	Joanne Klossner, Larry Plotkin	Seats (Total: 18)
	Tu 9:30am - 10:45am	SPH 0116A
	Th 9:30am - 10:45am	SPH 0116A

KNES405H **Principles & Techniques of Manual Muscle Testing**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in BSCI201 and BSCI202; and 1 course with a minimum grade of C- from Kinesiology core courses at the 300-level or higher. Additional information: This course emphasizes hands-on application of skills. Course participation is critical.

It is critical for sports medicine and sport performance specialists to understand the location and inter-relationships of the structures of the body that impact human movement. Thus, the primary purpose of this course is to facilitate an in-depth, understanding of the muscles of the body. Specifically, students will learn the origins, insertions, primary and secondary functions, as well as nervous innervations of the major muscle groups of the body. In addition, students will develop palpation skills and learn to grade the function of each muscle through manual muscle testing techniques. These skills form the foundation for assessing functional movement as well as performing safe and effective manual therapy techniques. Thus, while the focus of the class will be to develop sound, introductory palpation and manual muscle testing skills, basic principles of functional movement and manual therapy will also be addressed through hands-on application as well as case study.

0101	Larry Plotkin, Joanne Klossner	Seats (Total: 2)
	Tu 9:30am - 10:45am	SPH 0116A
	Th 9:30am - 10:45am	SPH 0116A

KNES442 **Psychology of Exercise and Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES350. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES442 or KNES498O. Formerly: KNES498O.

Examines the antecedents and consequences of exerciese behavior. Explores motivation, attitude, control, socialization. Proposes intervention strategies at the individual, organizational and societal levels.

0101	Seppo Iso-Ahola M 4:00pm - 6:30pm	Seats (Total: 30) SPH 0121

KNES442H **Psychology of Exercise and Health**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES350. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES442 or KNES498O. Formerly: KNES498O.

Examines the antecedents and consequences of exerciese behavior. Explores motivation, attitude, control, socialization. Proposes intervention strategies at the individual, organizational and societal levels.

Prerequisite: permission of department.

0101	Seppo Iso-Ahola M 4:00pm - 6:30pm	Seats (Total: 2) SPH 0121

KNES451 **Children and Sport: A Psychosocial Perspective**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in KNES350. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits.

Examination of youth sports from a psychosocial perspective, including the impact of highly structured sports on young athletes and the complex social network of coaches, parents and peers.

0101	Elizabeth Brown Tu 4:00pm - 6:30pm	Seats (Total: 50) ATL 2428

KNES451H **Children and Sport: A Psychosocial Perspective**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in KNES350. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits.

Examination of youth sports from a psychosocial perspective, including the impact of highly structured sports on young athletes and the complex social network of coaches, parents and peers.

Prerequisite: permission of department.

0101	Elizabeth Brown Tu 4:00pm - 6:30pm	Seats (Total: 3) ATL 2428

KNES457 **Managing Youth Programs: Educational, Fitness and Sport**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES350 and KNES370. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES457 or KNES498Y.

An examination of the basic functions involved in managing physical education, fitness, and youth sports programs. Focus on leadership skills, organizational management, and techniques for applying learned skills in a variety of organizational settings that serve the nation's youth.

0101	Jay Goldstein TuTh 9:30am - 10:45am	Seats (Total: 35) ATL 1114

KNES460 **Physiology of Aging and the Impact of Physical Activity**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (KNES320, KNES360). Restriction: Must be in one of the following programs (Kinesiology; Public Health Science); and must have earned a minimum of 75 credits. Credit only granted for: KNES498F or KNES460. Formerly: KNES498F.

Biology of the aging process in healthy individuals and those with chronic disease, the effects of acute exercise and exercise training on the physiological decline that occurs in humans, and the role that regular physical activity plays on enhancing the quality of life and activities of daily living in individuals.

0101	Steven Prior TuTh 9:30am - 10:45am	Seats (Total: 26) HBK 0115

KNES460H **Physiology of Aging and the Impact of Physical Activity**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (KNES320, KNES360). Restriction: Must be in one of the following programs (Kinesiology; Public Health Science); and must have earned a minimum of 75 credits. Credit only granted for: KNES498F or KNES460. Formerly: KNES498F.

Biology of the aging process in healthy individuals and those with chronic disease, the effects of acute exercise and exercise training on the physiological decline that occurs in humans, and the role that regular physical activity plays on enhancing the quality of life and activities of daily living in individuals.

Prerequisite: permission of department.

0101	Steven Prior TuTh 9:30am - 10:45am	Seats (Total: 4) HBK 0115

KNES477 **Honors Thesis**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSSP

Prerequisite: KNES476. Corequisite: KNES478. Restriction: Must be a KNES Honors student; and senior standing. Credit only granted for: KNES399 or KNES477.

Advisement will be on the individual basis. Thesis must be defended in the honors seminar.

0101	Tim Kiemel F 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 20) CCC 1111 ONLINE

KNES478 **Honors Seminar; Honors Seminar**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Guided discussion of research topics of current interest.

0101	Tim Kiemel F 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 20) CCC 1105 ONLINE

KNES483 **Sport Marketing and Media**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES287. Recommended: KNES355. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits.

Industry practices in sport marketing and media. Marketing strategies and consumer behavior in different sport contexts. Critical examination of selected social and economic issues related to the buying and selling of sport.

0101	Stephen McDaniel TuTh 3:30pm - 4:45pm	Seats (Total: 30) SPH 0121

KNES483H **Sport Marketing and Media**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES287. Recommended: KNES355. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits.

Industry practices in sport marketing and media. Marketing strategies and consumer behavior in different sport contexts. Critical examination of selected social and economic issues related to the buying and selling of sport.

Prerequisite: permission of department.

0101	Stephen McDaniel TuTh 3:30pm - 4:45pm	Seats (Total: 2) SPH 0121

KNES485 **Sport and Globalization**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DVUP

Prerequisite: Minimum grade of C- in KNES287. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits.

Examination of sport culture from a global perspective; focuses on theorizing the similarities and differences between various national sporting cultures.

0101	David Andrews W 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE

KNES497 **Kinesiology Senior Seminar**

(Perm req) Credits: 3 Grading Method: Regular, Pass-Fail CORE: CS General Education: DSSP

Prerequisite: A professional writing course with a minimum grade of C-; and must have completed 6 KNES core courses and 2 KNES option courses, all with a C- or higher; and must have completed STAT100 with a C- or better. Restriction: Senior standing or higher; and must be in Kinesiology program; and permission of department.

Discussions of contemporary issues vital to the discipline, critiques of research in the student's area/areas of special interest, completion of a major project where the student will be asked to demonstrate the ability to carry out investigative processes in problem solving and critical writing under faculty direction.

Click here for more information.

0102	Ronald Mower W 10:00am - 10:50am Class time/details on ELMs *Historicizing Modern Sport, Physical Education, and Physical Culture*	Seats (Total: 20) SPH 0116B ONLINE
0103	James Hagberg Tu 8:00am - 10:30am *"Physical Activity and the Obesity and Diabetes Epidemic"*	Seats (Total: 20) PLS 1146
0104	Calvin Lu Tu 4:30pm - 7:00pm *Biopsychology of Human Learning and Performance.*	Seats (Total: 20) SPH 0125
0105	Jae Kun Shim M 10:00am - 12:30pm *Neuromechanics of Human Hand and Finger Dexterity.*	Seats (Total: 20) ATL 1106
0106	Joanne Klossner TuTh 11:00am - 12:15pm *"Hot Topics in Sports Medicine"*	Seats (Total: 20) SPH 0116A
0107	Sami Ahmed W 4:00pm - 6:30pm *Issues in Sports Medicine and Physical Rehabilitation.*	Seats (Total: 20) SPH 0227
0109	Jo Zimmerman M 8:00am - 10:30am *Exercise & Brain Health: From Psychobiology to Behavior.*	Seats (Total: 20) PLS 1158

0110	Jay Goldstein	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	ATL 1106
	Applied Sport and Exercise Psychology for Practitioners.	

KNES498 **Special Topics in Kinesiology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest in areas not covered by regularly scheduled courses.

This class does NOT fulfill a KNES Options Requirement.

Contact department for information to register for this course.

KNES601 **Epidemiology of Physical Activity**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: KNES600; and must have completed an undergraduate statistics course (e.g., STAT100 or equivalent).

An exploration of basic epidemiological study design, methods, and health outcomes in the field of physical activity.

0101	Jennifer Roberts	Seats (Total: 15)
	Tu 4:00pm - 6:30pm	SPH 2334

KNES602 **Physical Activity Program Planning and Evaluation**

Credits: 3 Grading Method: Regular, Audit

Recommended: KNES600.

An in-depth analysis of the planning, implementation, and evaluation of physical activity interventions and programs intended to achieve physical activity and public health goals.

0101	Brit Saksvig	Seats (Total: 15)
	W 1:00pm - 3:30pm	SPH 2334

KNES609 **Research Issues in Kinesiology**

(Perm req)

Credits: 1 Grading Method: Regular

Issues, methodologies, and critical analyses of current research in Kinesiology.

Contact department for information to register for this course.

KNES610 **Methods and Techniques of Research**

Credits: 3 Grading Method: Regular, Audit

Studies methods and techniques of research used in Kinesiology; an analysis of examples of their use; and practice in their application to problems of interest to the student.

0101	Seppo Iso-Ahola	Seats (Total: 15)
	W 4:00pm - 6:30pm	SPH 2334

KNES613 **Theories Physical Culture**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: KNES613 or KNES689I. Formerly: KNES689I.

Examines and assesses numerous social and cultural theories as frameworks for critically interpreting the varied institutions, ideologies, and embodiments of physical culture.

0101	David Andrews	Seats (Total: 15)
	Tu 4:00pm - 6:30pm	SPH 0225

KNES618 **Current Readings in Exercise and Applied Physiology**

Credits: 1 Grading Method: Regular, Audit

Student-led presentations of contemporary literature in the areas of genetics, exercise science, fitness and health. Emphasis on papers describing new research findings, novel techniques, innovative methods, and emerging issues.

0101	Sarah Glancy	Seats (Total: 15)
	F 1:00pm - 1:50pm	SPH 0223

KNES662 **Psychology of Exercise and Health**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: KNES350; or students who have taken courses with comparable content may contact the department. Credit only granted for: KNES662 or KNES689O. Formerly: KNES689O.

Examines the antecedents and consequences of exerciese behavior. Explores motivation, attitude, control, socialization. Proposes intervention strategies at the individual, organizational and societal levels.

0101	Seppo Iso-Ahola	Seats (Total: 5)
	M 4:00pm - 6:30pm	SPH 0121

KNES678 **Professional Seminar for Teacher Development in Physical Education**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

The spring seminar course is an extension of the fall seminar course and spring internship course. It accompanies a full time undergraduate level teaching internship and is intended to support and extend students' field experience learning. The spring seminar course is designed to continue to provide students with the support they need to successfully meet the College of Education's Middle School Mathematics and Science programmatic requirements and the Maryland State Department of Education's Middle School Mathematics and Science Teacher Certification Requirements. These requirements include demonstrating mastery on all of the College of Education's Foundational Competencies (FCCs) and Performance Based Assessments (PBAs) and the national edTPA, InTASC, and AMLE Standards.

IH60	Cara Grant	Seats (Total: 20)
	M 4:00pm - 6:30pm	ONLINE

KNES689 **Special Problems in Kinesiology**

(Perm req)

Credits: 1-6 Grading Method: Regular

Master or doctoral candidates who desire to pursue special research problems under the direction of their advisor may register for 1-6 hours of credit under this number.

Contact department for information to register for this course.

KNES689T **Special Problems in Kinesiology; Teaching Internship**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Master or doctoral candidates who desire to pursue special research problems under the direction of their advisor may register for 1-6 hours of credit under this number.

Outreach Secondary MCERT-KNES. Departmental permisson required. Students are required to pay a course fee; refer to program materials for details.

CE01	Cara Grant	Seats (Total: 20)
	Tu 4:30pm - 6:30pm	ONLINE
	Class time/details on ELMs	ONLINE

KNES711 **Professional Development and Grantsmanship**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be a Doctoral student; and must be in a major in SPHL-School of Public Health. Credit only granted for: KNES711 or KNES789X. Formerly: KNES789X.

Enhance continued professional development through an exploration of culture, climate, expectations and mentoring in research I universities. Generate a grant application including the hypothesis, structure, specific aims, background and significance, and submission of a total grant. Grant process and product will be emphasized.

0101	James Hagberg	Seats (Total: 15)
	W 3:00pm - 5:30pm	SPH 0223

KNES778 **Internship in Physical Activity and Public Health**

Credits: 1-4 Grading Method: Regular

The internship is a time-limited, supervised period of public/community health activities carried out in a health or allied health organization involved with physical activity. Students gain practical experience in areas such as program planning and implementation, program evaluation, public policy analysis, research, and management.

0101	Shannon Jette	Seats (Total: 5)
	Class time/details on ELMs	ONLINE

KNES786 **Capstone Project in Physical Activity and Public Health**

Credits: 3 Grading Method: Regular

Prerequisite: KNES600, KNES601, and KNES602.

The culminating experience in which the student applies knowledge and skills learned in the MPH program to conduct independent work on a physical activity problem under the supervision of a faculty advisor.

0101	Shannon Jette	Seats (Total: 5)
	Class time/details on ELMs	ONLINE

KNES789 **Advanced Projects in Kinesiology**

(Perm req)

Credits: 1-3 Grading Method: Regular

Advanced projects examining current problems and trends in kinesiology.

Contact department for information to register for this course.

KNES789A **Advanced Projects in Kinesiology; Contemporary Neuromechanics**

Credits: 3 Grading Method: Regular, Sat-Fail

Advanced projects examining current problems and trends in kinesiology.

0101	Jae Kun Shim	Seats (Total: 15)
	Tu 4:00pm - 6:30pm	SPH 0233

KNES789R **Advanced Projects in Kinesiology; Brain Dynamics and EEG: Applications to Cognitive-motor Performance**

Credits: 3 Grading Method: Regular

Advanced projects examining current problems and trends in kinesiology.

Recommended: NACS641 (Introduction to Neuroscience) and any signal processing course (e.g., KNES689D Special Problems in Kinesiology: Physiological Signal Processing). This course covers the theory and practice of electroencephalography, which includes, but not limited to, the basic principles of EEG (synaptic sources, volume conduction, electrodes, recording techniques, etc.), various EEG rhythms that reflect cognitive processing, signal processing, conventional analytic methods such as event-related potentials and spectral analysis as well as computational approaches like source localization and functional connectivity. This course may provide coverage of other electrography such as electrooculography (EOG) electromyography (EMG), and electrocardiography (ECG or EKG).

0101	Hyuk Oh	Seats (Total: 15)
	TuTh 4:00pm - 5:15pm	SPH 0116A

KNES799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

KNES898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

KNES899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

KORA Korean Spring 2022

KORA102 **Elementary Korean II**

Credits: 3 Grading Method: Regular

Prerequisite: KORA101; or must have appropriate Foreign Language Placement Test (FLPT) score.
Restriction: Must be a non-Heritage student; and permission of instructor required for new students.

Continued training in elementary spoken and written Korean.

0101	Seong Minne Koh MWF 10:00am - 10:50am	Seats (Total: 15) JMZ 0120
0201	Seong Minne Koh MWF 2:00pm - 2:50pm	Seats (Total: 15) JMZ 3203

KORA202 **Intermediate Korean II**

Credits: 3 Grading Method: Regular CORE: HO

Prerequisite: KORA201; or permission of instructor.

The second stage of an intermediate-level course designed for non-Heritage students. It continues the second year of instruction in the University's two track Korean Program.

0101	Seong Minne Koh MWF 11:00am - 11:50am	Seats (Total: 15) JMZ 0120
0201	Seong Minne Koh MWF 1:00pm - 1:50pm	Seats (Total: 15) JMZ 3203

KORA398I **Special Topics in Korean Studies; Sijo to K-Pop: Song Lyrics as a Literary Genre**

Credits: 3 Grading Method: Regular, Pass-Fail

Study of particular aspect of Korean language, literature, and/or culture. Topic and language of instruction to be announced when course is offered.

This is a Big Ten Academic Alliance CourseShare course. The instructor is at the Rutgers University, but you enroll and receive credit for it at Maryland.

0101	Instructor: TBA	Seats (Total: 10)	
	Meets January 18, 2022 - May 2, 2022		
	MTh 12:10pm - 1:30pm	JMZ 1205	
	Contact instructor or department for details.		

LARC Landscape Architecture Spring 2022

LARC120 **Digital Fundamentals**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Restriction: Permission of AGNR-Plant Science & Landscape Architecture department; and must be in Landscape Architecture program.

An introduction to fundamental computer tools and techniques commonly used in design communication and landscape architecture practice. Non-drafting computer tools will be used to orient basic digital image capture, manipulation, and presentation formatting.

Students must pay a $200.00 Landscape Architecture Fee.

0101	Christopher Ellis	Seats (Total: 20)	
	Tu 2:00pm - 2:50pm	PLS 2137	
	Tu 3:00pm - 4:40pm	PLS 2137	Lab
0102	Christopher Ellis	Seats (Total: 20)	
	Th 2:00pm - 2:50pm	PLS 2137	
	Th 3:00pm - 4:40pm	PLS 2137	Lab

LARC151 **Urban Agriculture: Designing and Assessing Edible Landscapes**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSSP, SCIS

Students will examine the growing development of urban agriculture and edible landscapes. Urban agriculture has seen a recent growth and interest in cities across the globe. From Paris to New York, from Baltimore to Detroit, urban agriculture is an emerging land use to address a variety of needs. Redevelopment, food deserts, community engagement and environmental justice are just some of the issues and topics that are connected to the recent growth of urban agriculture. This course will take a critical examination of urban agriculture's contribution to the food system, its input and outputs in the urban landscape, and the planning and design of urban agriculture and edible landscapes.

0101	Deni Ruggeri	Seats (Total: 20)	
	MW 11:00am - 11:50am	PLS 1140	
	M 12:00pm - 12:50pm	PLS 1164	Discussion

0102	Deni Ruggeri MW 11:00am - 11:50am M 1:00pm - 1:50pm	Seats (Total: 20) PLS 1140 PLS 1164	Discussion
0103	Deni Ruggeri MW 11:00am - 11:50am W 12:00pm - 12:50pm	Seats (Total: 20) PLS 1140 PLS 1162	Discussion
0104	Deni Ruggeri MW 11:00am - 11:50am W 1:00pm - 1:50pm	Seats (Total: 20) PLS 1140 PLS 1162	Discussion

LARC160 **Introduction to Landscape Architecture and Environmental Design**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: HO | General Education: DSHU, DSSP

History, theory, philosophy and current practice of the profession of landscape architecture. Explores the interactive relationship between humans and their environment by examining people's perceptions of and changing attitude towards the landscape, as well as, an examination of how these are related to ecological and cultural influences. Topics include urban, ecological, community and creative design.

0101	Dennis Nola MW 10:00am - 10:50am M 11:00am - 11:50am	Seats (Total: 19) PLS 1140 PLS 1168	Discussion
0102	Dennis Nola MW 10:00am - 10:50am M 12:00pm - 12:50pm	Seats (Total: 19) PLS 1140 PLS 1168	Discussion
0103	Dennis Nola MW 10:00am - 10:50am W 12:00pm - 12:50pm	Seats (Total: 19) PLS 1140 PLS 1115	Discussion
0104	Dennis Nola MW 10:00am - 10:50am W 1:00pm - 1:50pm	Seats (Total: 18) PLS 1140 PLS 1146	Discussion

LARC221 **Digital Design Tools**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail

Prerequisite: LARC120 and LARC141. Recommended: LARC240 and LARC265. Restriction: Sophomore standing or higher; and must be in Landscape Architecture program.

The development and application of computing skills as used by the landscape architecture profession. This Computer-Aided Design and Drafting (CADD) course develops computer drafting using a variety of software programs. It also introduces students to Geographic Information Systems (GIS) mapping technologies.

0101	John Wray IV	Seats (Total: 15)	
	Tu 8:00am - 10:45am Th 8:00am - 10:45am	PLS 2137 ONLINE	 Lab

LARC240 **Graphic Communication and Design Studio**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail

Prerequisite: LARC141 and LARC263. Corequisite: LARC221 and LARC265. Restriction: Sophomore standing or higher; and must be in Landscape Architecture program.

Exploration of graphic presentation techniques and original concept development for landscape architecture planning and design.

Students must pay a $300.00 Landscape Architecture Fee.

0101	Naomi Sachs	Seats (Total: 15)	
	MW 2:00pm - 2:50pm MW 3:00pm - 4:50pm	PLS 2152 PLS 2152	 Lab

LARC263 **History of Landscape Architecture**

Credits: 3 Grading Method: Regular, Pass-Fail CORE: HA General Education: DSHU

A survey of landscape architecture history from the ancient Western civilizations to the twentieth century with consideration of parallel developments in the Eastern World, European Africa and the Americas.

0101	Caren Yglesias	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm *For LARC majors only.*	AJC 2132
0102	Caren Yglesias	Seats (Total: 10)
	TuTh 12:30pm - 1:45pm	AJC 2132

LARC321 **Landscape Structures and Materials**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: LARC320; and LARC340. Restriction: Must be in Landscape Architecture program. Credit only granted for: LARC321 or PLSC321.

An examination of the use, properties, and detailing of materials used in landscape construction. The use and design of structures in the landscape.

0101	Brenda Iraola	Seats (Total: 20)	
	TuTh 9:30am - 10:45am	PLS 1111	
	Th 11:00am - 12:15pm	PLS 2150	Lab

LARC341 **Regional Design Studio**

(Perm req)

Credits: 5

Grading Method: Regular, Pass-Fail

Prerequisite: LARC320; and LARC340. Restriction: Junior standing or higher; and must be in Landscape Architecture program.

An examination of the landscape architect's role within the interdisciplinary regional design field incorporating GIS technologies, spatial modeling, and the regional design process.

Students must pay a $300.00 Landscape Architecture Fee.

A Partnership for Action Learning in Sustainability (PALS) course where students apply classroom learning to actual community needs.

0101	Christopher Ellis	Seats (Total: 15)	
	MW 1:00pm - 1:50pm	PLS 2150	
	MW 2:00pm - 4:50pm	PLS 2150	Lab

LARC461 **People and the Environment**

Credits: 3

Grading Method: Regular, Pass-Fail

Credit only granted for: LARC489K or LARC461. Formerly: LARC489K.

Focus is placed on human and environmental interactions. Students will look at both natural and built environments and how they influence human health and well-being. Many environmental settings will be examined. These include hospitals, public housing neighborhoods, school settings, retirement communities, transportation corridors and green spaces. We will also explore how racial and socio-economic factors affect living and working environmental conditions. Ultimately, students will be using this knowledge to create environments that support individuals, families and various community groups' health and well-being.

0101	Byoung-Suk Kweon	Seats (Total: 20)	
	M 9:00am - 10:50am	PLS 1111	
	W 9:00am - 9:50am	PLS 1111	

LARC471 **Capstone Studio: Community Design**

(Perm req)

Credits: 5 Grading Method: Regular, Pass-Fail CORE: CS

Prerequisite: LARC440; and LARC470. Restriction: Senior standing; and must be in Landscape Architecture program.

A capstone experience that emphasizes the integration of critical thinking skills and methodologies introduced throughout the landscape architecture curriculum. Students apply design and analysis methodologies, evaluate alternative solutions, involve community residents and engage in final design development, using the master plan and site design process, report writing, and oral and graphic presentations. Final presentations are open to the university and the community.

Occassional field trips throughout the semester. Please see the instructor for details. Students must pay a $300.00 Landscape Architecture Fee.

A Partnership for Action Learning in Sustainability (PALS) course where students apply classroom learning to actual community needs.

0101	Byoung-Suk Kweon	Seats (Total: 15)	
	MW 1:00pm - 1:50pm	PLS 2148	
	MW 2:00pm - 4:50pm	PLS 2148	Lab

LARC499 **Independent Studies in Landscape Architecture**

(Perm req)

Credits: 1-4 Grading Method: Regular

Independent studies in landscape architecture including field, studio or library research under the direction of a faculty member.

Contact department for information to register for this course.

LARC641 **Graduate Studio II**

(Perm req)

Credits: 5

Grading Method: Regular, Audit

Prerequisite: LARC640. Corequisite: LARC720. Restriction: Permission of AGNR-Plant Science & Landscape Architecture department.

Principles and techniques of site analysis, environmental design and site development for human settlements and interaction with natural systems. Will expand analytical skills through complex site design problems. Students will research, observe and apply low impact development and sustainable practices, become familiar with building and landscape types by investigating alternative arrangements on the land, and understand user needs and design for populations with a range of abilities. Will support LEED and sustainable practices and acknowledge the requirements of public health, safety, and welfare.

Students must pay a $300.00 Graduate Studio Fee.

A Partnership for Action Learning in Sustainability (PALS) course where students apply classroom learning to actual community needs.

0101	Dennis Nola	Seats (Total: 10)	
	TuTh 1:00pm - 1:50pm	PLS 1142	
	TuTh 2:00pm - 4:50pm	PLS 1142	Lab

LARC648 **Graduate Studio IV**

(Perm req)

Credits: 5

Grading Method: Regular, Audit

An exploration that will focus on issues in landscape planning and design such as campus planning, urban housing and recreation, and neighborhood preservation, restoration and development. Projects will emphasize the value of responsible academic and civic landscapes, the place of historic resources in contemporary life, and innovative solutions for the integration of past and future landscapes.

Students must pay a $300.00 Graduate Studio Fee. An exploration that will focus on issues in landscape planning and design such as campus planning, urban housing and recreation, and neighborhood preservation, restoration and development. Projects will emphasize the value of responsible academic and civic landscapes, the place of historic resources in contemporary life, and innovative solutions for the integration of past and future landscapes.

0101	Jack Sullivan	Seats (Total: 10)	
	TuTh 1:00pm - 1:50pm	PLS 2154	
	TuTh 2:00pm - 4:50pm	PLS 2154	Lab

LARC663 **Landscape and Garden History**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Restriction: Permission of AGNR-Plant Science & Landscape Architecture department.

History of garden making and its evolution into design practice. Students will become familiar with narratives of garden art and landscape architecture through the study of selected key sites, designers, and visual written sources. A focus on gardens' past and afterlife; the nature of primary sources (both built and written), and how these can be evaluated and used. Primary sources will be drawn from several disciplines and include a wide array of genres: treatises, epistolary exchanges, tax returns, novels, poems, paintings and drawings.

0101	Jack Sullivan	Seats (Total: 12)
	Tu 9:30am - 10:45am	PLS 0104
	Tu 11:00am - 12:15pm	PLS 0104

LARC671 **Landscape Architecture Research Methods**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of AGNR-Plant Science & Landscape Architecture department.

Investigation and discussion of broad scope of research methods and the development of landscape design and planning research techniques and skills. The urban environment will be viewed primarily as a social and psychological environment, with concern for who uses these environments and the conflicts that can arise between user groups.

0101	Naomi Sachs	Seats (Total: 15)
	W 10:00am - 12:50pm	PLS 1172

LARC689C **Special Topics in Landscape Architecture; Land Art: Interventions, Mediations, Meditations**

Credits: 3 Grading Method: Regular, Audit

Special topics in landscape architecture

In this advanced studio/seminar course, a rich and unconventional approach to visualization of designed land is explored. Fine art practices, including painting, appropriation, found objects, land art, photography, and video, are starting points for students to develop their own dynamic visual language to communicate ideas, inspire clients, and lead positive change. Central to the course is the study of earth art or earthworks, land or environment artists, and related sculptors and nature-inspired artists such as Agnes Denes, Ian Hamilton Finlay, Hamish Fulton, Andy Goldsworthy, Michael Heizer, Nancy Holt, Derek Jarman, Agnes Martin, Maya Lin, Richard Long, Walter de Maria, Ana Mendieta, Mary Miss, Georgia O'Keefe, Dennis Oppenheim, Robert Smithson, Rachel Whiteread, and Amanda Williams.

0101	James Westwater	Seats (Total: 8)	
	MF 12:00pm - 12:50pm	PLS 0111	
	MF 1:00pm - 1:50pm	PLS 0111	Lab

LARC699 **Independent Studies in Landscape and Architecture**

(Perm req)

Credits: 1-3 Grading Method: Regular

Individual Instruction course.

Contact department for information to register for this course.

LARC720 **Environmental Analysis and Site Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: LARC640; or permission of AGNR-Plant Science & Landscape Architecture department. Corequisite: LARC641.

Techniques for prediction of alterations in social and natural processes brought about by human use of the land; application of such assessments to environmental management; basic methods of landscape alteration, augmentation, and control including grading, drainage, road and trail design, and stormwater management.

0101	Deni Ruggeri	Seats (Total: 12)	
	Th 8:00am - 9:50am	PLS 1142	
	Th 10:00am - 11:50am	PLS 1142	Lab

LARC799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Development of a terminal thesis on a problem in landscape architecture, designed to demonstrate comprehensive skills and knowledge achieved in the graduate program. The subject will be selected in consultation with an advisor and periodically reviewed with a committee headed by the advisor.

Students must pay a $300.00 Graduate Studio Fee.

Contact department for information to register for this course.

LASC Certificate in Latin American Studies Spring 2022

LASC235 **Issues in Latin American and Caribbean Studies II**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: HO, D | General Education: DSHS, DSHU, DVUP

Cross-listed with: PORT235, SPAN235. Credit only granted for: LASC235, PORT235, SPAN235, or LACS235. Formerly: LASC235.

Major issues shaping Latin American and Caribbean societies including the changing constructions of race, ethnicity, gender and class as well as expressions of popular cultures and revolutionary practices. Taught in English.

0101	Keisha Allan	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	KNI 1105

LASC251 **Latin America Since Independence**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DVUP

Cross-listed with: HIST251. Credit only granted for: HIST251, LASC251, or LACS251. Formerly: HIST251 or LASC251.

Introductory survey of the history of Latin America from the era of independence (c. 1810-1825) through the early 1980s. Major themes include independence and sovereignty, postcolonialism and neocolonialism, nation- and state-building, liberalism, citizenship, economic development and modernization, social organization and stratification, race and ethnicity, gender relations, identity politics, reform and revolution, authoritarianism and democratization, and inter-American relations.

Contact department for information to register for this course.

LASC286 **Internship in Latin American/Caribbean Studies**

(Perm req)

Credits: 1-6 | Grading Method: Regular, Pass-Fail

Prerequisite: LASC234, SPAN234, LASC235, SPAN235, LACS250, HIST250, LACS251, or HIST251; and permission of Latin American and Caribbean Studies Center required. Restriction: Minimum cumulative GPA of 2.5; and cannot have more than 60 credits total. Credit only granted for: LASC286 or LACS286. Formerly: LASC286. Additional information: The course is primarily intended for students seeking the Certificate in Latin American and Caribbean Studies, but exceptions will be considered for students with educational or career interests which lie in this area. Student internships must be approved by the Director and students must secure an appropriate faculty mentor to supervise the internship course.

Internship experience with an organization that works with or studies Latin American and/or the Caribbean. This is an experiential learning course that provides semester-long training that enriches the student's academic field of study and the LASC Certificate. Students submit a final written report of how the experience ties into their major field of study.

Contact department for information to register for this course.

LASC348E **Caribbean Literature in English**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP

Cross-listed with: ENGL362. Credit only granted for: ENGL362 or LASC348E.

Political and literary traditions that intersect in the fiction, poetry, and drama written in English by Caribbean writers, primarily during the 20th century.

Cross-listed with ENGL362. Credit granted for ENGL362 or LASC348E.

Contact department for information to register for this course.

LASC448W **Special Topics in Latin American and Caribbean Studies; Doing Business in Nicaragua: Microfinance and Social Value Creation**

Credits: 3 | Grading Method: Regular, Pass-Fail

Intensive study of a selected topic related to Latin American and Caribbean Studies.

Contact department for information to register for this course.

LASC486 **Internship in Latin American/Caribbean Studies**

(Perm req)

Credits: 1-6 | Grading Method: Regular, Pass-Fail

Prerequisite: Student must have completed at least two LACS courses, one of which must be a required/core course (LACS/SPAN234, LACS/SPAN235, LACS/HIST250, or LACS/HIST251); and permission of Latin American Studies Center required. Restriction: Minimum cumulative GPA of 2.5; and must have earned a minimum of 60 credits. Credit only granted for: LASC486 OR LACS486. Formerly: LASC486. Additional information: The course is primarily intended for students seeking the Certificate in Latin American and Caribbean Studies, but exceptions will be considered for students with educational or career interests which lie in this area. Student internships must be approved by the Director, and students must secure an appropriate faculty mentor for the internship course. An internship course will be approved only if a faculty supervisor is available.

Internship experience with an organization that works with or studies Latin American and/or the Caribbean. This is an experiential learning course that provides semester-long training that enriches the student's academic field of study and the LACS Certificate. Students submit a final written report of their experience, including critical analysis of the institutional relevance to their major field of study and to Latin American and Caribbean Studies. Students will also be asked to give an oral presentation.

Contact department for information to register for this course.

LASC609 **Colloquium in Latin American and Caribbean Studies; Colloquium**

Credits: 1-2 | Grading Method: Regular, Audit

The colloquium is one of three core courses for the Graduate Certificate in Latin American and Caribbean Studies. Providing 3 credits over the course of multiple semesters (1-2 credits per semester), it ensures an ongoing intellectual community among students, faculty, and guest scholars. For group discussions, the Colloquium meets four times per semester. Additionally, students attend Latin American and Caribbean activities and events in order to discuss and theorize about the region and its diaspora from informed perspectives. Each semester's colloquium provides 1-2 credits toward the Graduate Certificate.

0101	Isabella Alcaniz	Seats (Total: 10)
	Tu 2:00pm - 3:30pm	HJP 3120
	Contact instructor or department for details.	

LASC609A **Colloquium in Latin American and Caribbean Studies; Colloquium**

Credits: 2 Grading Method: Regular, Audit

The colloquium is one of three core courses for the Graduate Certificate in Latin American and Caribbean Studies. Providing 3 credits over the course of multiple semesters (1-2 credits per semester), it ensures an ongoing intellectual community among students, faculty, and guest scholars. For group discussions, the Colloquium meets four times per semester. Additionally, students attend Latin American and Caribbean activities and events in order to discuss and theorize about the region and its diaspora from informed perspectives. Each semester's colloquium provides 1-2 credits toward the Graduate Certificate.

0101	Isabella Alcaniz	Seats (Total: 10)
	Tu 2:00pm - 3:30pm	HJP 3120
	Contact instructor or department for details.	

LASC688 **Experiential Learning in Latin American and Caribbean Studies**

Credits: 1-3 Grading Method: Regular, Audit

Offers an opportunity for practical experience of Latin American and Caribbean organizations, to supplement a methodological focus. Credits may be fulfilled with internships, an applied research assistantship, or any program outside the University that focuses on the experiences of Latin America, the Caribbean, and related diasporas. Examples of experiential learning may include internships at organizations such as the Pan American Health Organization, the World Bank, the Washington Office on Latin America (WOLA), or Casa de Maryland.

0101	Isabella Alcaniz	Seats (Total: 3)
	Contact instructor or department for details.	

LASC689 **Research Praxis in Latin American and Caribbean Studies**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit

The concentration in research praxis is intended primarily to serve students who are interested in academic research and teaching in Latin American and Caribbean studies by exposing them to a research experience supervised by an affiliate faculty member in Latin American and Caribbean studies. This might be a 3-credit intensive research seminar or independent studies tutorial involving a major research project or a 1-3 credit research assistantship in Latin American and Caribbean studies.

0101	Isabella Alcaniz	Seats (Total: 3)
	Contact instructor or department for details.	

LATN Latin Spring 2022

LATN102 **Elementary Latin II**

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed LATN101 at University of Maryland, College Park; or permission of ARHU-Classics department.

0101	Eugenia Lao	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

LATN302 **Ovid**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Major works of Ovidian poetry. Literary and moral atmosphere of Augustan age. Readings are in Latin.

0101	Katherine Wasdin	Seats (Total: 7)
	TuTh 2:00pm - 3:15pm	JMZ 1226

LATN405 **Lucretius**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Readings are in Latin.

0101	Jorge Bravo	Seats (Total: 5)
	Tu 5:00pm - 7:40pm	MMH 1218

LATN488O **Latin Readings**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The reading of one or more selected Latin authors from antiquity through the Renaissance. Reports.

0101	Gregory Bucher W 5:00pm - 7:40pm	Seats (Total: 5) ONLINE

LATN499 **Independent Study in Latin Language and Literature**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

LATN623 **The Augustan Age**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Analysis of the major literary figures and genres in prose and poetry of the period from 43 BC to AD 14.

0101	Gregory Bucher W 5:00pm - 7:40pm	Seats (Total: 10) ONLINE

LATN688L **Special Topics in Latin Literature**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Jorge Bravo Tu 5:00pm - 7:40pm	Seats (Total: 10) MMH 1218

LATN699 **Independent Studies in Latin Literature**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Contact department for information to register for this course.

LATN799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

LBSC602 **Serving Information Needs**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC602, or both LBSC601 and LBSC650.

An introduction to the skills necessary to interact directly with individuals through the exploration of user behavior theory, strategies to locate and evaluate information from print and electronic resources, and policies and procedures to ensure that all individuals can become information literate.

IM01	Colleen Wood Class time/details on ELMs	Seats (Total: 35) ONLINE
IM02	Ursula Gorham-Oscilowski M 6:00pm - 8:45pm	Seats (Total: 30) HBK 1108

LBSC611 **History of the Book**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC611 or LBSC078B. Formerly: LBSC708B.

Introduction to the history and development of the book from pre-printing and incunabula to the post-modern book. Book illustration; publishing; collecting.

IM01	Stephen Greenberg M 6:00pm - 8:45pm	Seats (Total: 30) ONLINE

LBSC631 **Achieving Organizational Excellence**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC631 or LBSC635.

Overview of the principles, practices, and techniques required for effective leadership and management. The innovative strategies, management responsibilities, and skills needed to achieve and sustain high organizational performance in information-based cultural institutions.

IM01	Ryan O'Grady M 6:00pm - 8:45pm	Seats (Total: 30) HBK 0302H

IM02	Renee Hill	Seats (Total: 37)
	Class time/details on ELMs	ONLINE

LBSC641 **Selecting and Evaluating of Resources for Learning**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies.

Policies and procedures for collection development, including identifying, evaluating, acquiring, providing, and promoting resources in all formats, to support learning and teaching in elementary and secondary schools.

CT01	Kevin Washburn	Seats (Total: 1)
	Class time/details on ELMs	ONLINE
IM01	Kevin Washburn	Seats (Total: 29)
	Class time/details on ELMs	ONLINE

LBSC646 **Literature and Materials for Young Adults**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC646 or LBSC746. Formerly: LBSC746.

Survey of literature and other materials for older children and adolescents. Criteria for evaluating and using such materials as they relate to the needs, interests, reading abilities, and other capabilities of young readers.

IM01	Jennifer Sturge	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LBSC671 **Creating Information Infrastructures**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC671, or LBSC670 and LBSC690.

Introduction to methods used to create, acquire, organize, manage and preserve information. Information systems currently used to support digital and physical libraries, databases, and repositories will be explored.

IM01	Maggie Dull Class time/details on ELMs	Seats (Total: 30) ONLINE
IM02	Christopher Dempwolf W 6:00pm - 8:45pm	Seats (Total: 30) HBK 0109

LBSC707 **Field Study in Information Service**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: LBSC602, LBSC671, and LBSC631; and must have completed an additional 9 credits. Or permission of instructor. Restriction: Must be in Library and Information Science (Master's) program; and permission of INFO-College of Information Studies.

Supervised internship experience in a library, archive, museum, or other information organization.

IM01	Abbie Basile Class time/details on ELMs	Seats (Total: 40) ONLINE

LBSC709 **Independent Study**

Credits: 1-3 Grading Method: Regular, Audit

Intensive individual study, reading, or research in an area of specialized interest under faculty supervision.

Contact department for information to register for this course.

LBSC734 **Seminar in the Academic Library**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: LBSC602; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Role of the academic library within the framework of higher education. Planning programs and services, collections, support, fiscal management, physical plant, and cooperation.

IM01	Suzy Wilson, Lindsay Carpenter Th 4:00pm - 6:45pm	Seats (Total: 30) ONLINE

LBSC741 **Seminar in School Library Administration**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: INST650; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Development, management, and evaluation of school library programs at all levels.

IM01	Jennifer Sturge	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LBSC745 **Storytelling Materials and Techniques**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: LBSC645; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Literary sources and instruction and practice in oral techniques.

IM01	Katherine Izsak	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LBSC749 **Internship in School Libraries**

Credits: 1-3 Grading Method: Regular, Audit

Opportunities to observe and participate in the operation of school libraries at the elementary and secondary levels under the supervision of certified school librarians. Required of all School Library Media certification candidates.

IM01	Bridgette Comanda	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LBSC750 **Research and Teaching Fellowship I**

(Perm req)

Credits: 1 Grading Method: Regular

Restriction: Permission of INFO-College of Information Studies.

Part of the Research and Teaching Fellowship program, a three-semester teacher training and professional development program in academic libraries. Fellows will complete weekly readings, participate in weekly discussions, observe information literacy instruction sessions, and co-teach at least one research session with another fellow.

Prerequisite: LBSC602

IM01	Lindsay Carpenter Tu 10:00am - 11:00am	Seats (Total: 10) MCK 4100A

LBSC752 **Research and Teaching Fellowship III**

Credits: 1 Grading Method: Regular

Restriction: Permission of INFO-College of Information Studies.

Part of the Research and Teaching Fellowship program, a three-semester teacher training and professional development program in academic libraries. Fellows will complete weekly readings, participate in weekly discussions, and serve as a Discussion Leader for two class periods of LBS750, Research and Teaching Fellowship I. Taken in conjunction with the field study course, either LBSC 703 or LBSC 707.

Prerequisite: LBSC751

IM01	Suzy Wilson Tu 11:00am - 12:00pm	Seats (Total: 6) MCK 4100A

LBSC770 **Metadata and Tools for Information Professionals**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: LBSC671; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Principles, standards, and practices of information representation to facilitate accessing needed information in digital bibliographic environments. Includes exposure to Metadata, XML, RDA/AACR2R, DTDs, MARC, Dublin Core, MODS, ISBN and ISSN, FRBR, FRAD, Classification systems, and Controlled Vocabularies such as LCSH, SEARS, NLM, Getty and ERIC Thesauri, and others.

IM01	David Patrick Class time/details on ELMs	Seats (Total: 30) ONLINE

LBSC786 **Library and Archives Preservation**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: INST604; and permission of instructor. Restriction: Permission of INFO-College of Information Studies.

An introduction to library and archives materials and media, the risks that affect their preservation and strategies used to enhance preservation of library and archives collections. The course reviews preservation knowledge and skills that archival and library staff uses when providing access, managing, processing and working with collections.

IM01	Beatriz Haspo Tu 6:00pm - 8:45pm	Seats (Total: 25) HBK 2119

LBSC791 **Designing Principled Inquiry**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: LBSC671, LBSC602, and LBSC631; and additional 9 credits of coursework applied to the MLIS degree. Or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Critical analysis of roles of information professions and institutions in integrating theory, methods, practice, policies, and values of the field, and applying them to the design of future information systems and services.

IM01	Ursula Gorham-Oscilowski Tu 6:00pm - 8:45pm	Seats (Total: 30) PHY 2213
IM02	Renee Hill Class time/details on ELMs	Seats (Total: 37) ONLINE
IM03	Renee Hill Class time/details on ELMs	Seats (Total: 30) ONLINE

LBSC799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Intensive research conducted under the supervision of a faculty member.

Contact department for information to register for this course.

LGBT Lesbian Gay Bisexual Transgender Studies Spring 2022

LGBT200 **Introduction to Lesbian, Gay, Bisexual, and Transgender Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB, D General Education: DSHS, DVUP

Credit only granted for: LGBT200.

An interdisciplinary study of the historical and social contexts of personal, cultural and political aspects of LGBT life. Sources from a variety of fields, such as anthropology, history, psychology, sociology, and women's studies, focusing on writings by and about LGBT people.

0101	Jaime Madden MWF 9:00am - 9:50am	Seats (Total: 30) KNI 1103
0201	Amira Lundy-Harris MWF 2:00pm - 2:50pm	Seats (Total: 30) LEF 1220
0301	Adreanna Nattiel TuTh 9:30am - 10:45am	Seats (Total: 25) EDU 3233
0401	Adreanna Nattiel TuTh 12:30pm - 1:45pm	Seats (Total: 25) EDU 3233

LGBT265 **LGBTQ+ Literatures and Media**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HL, D	General Education: DSHU, DVUP

Restriction: Must not have completed LGBT265. Cross-listed with: ENGL265. Credit only granted for: ENGL265 or LGBT265.

A study of literary and cultural expressions of queer and trans identities, positionalities, and analytics through an exploration of literature, art, and media. We will examine historical and political power relations by considering the intersections of sexuality and gender with race, class, nation, and disability. Topics include the social construction and regulation of sexuality and gender, performance and performativity, intersectionality, and the relationship between aesthetic forms and queer/ trans subjectivity. Our interpretations will be informed by queer and trans theories.

0201	Emilee Durand MWF 1:00pm - 1:50pm	Seats (Total: 30) TWS 0236

LGBT310 **Transgender Studies**

Credits: 3	Grading Method: Regular, Pass-Fail

Cross-listed with: WGSS310. Credit only granted for: LGBT310, WMST310 or WGSS310.

Introduces students to the interdisciplinary field of transgender studies, providing a history of the field and engaging current debates within it. Students will explore the emergence and consolidation of trans identities, practices, cultures, and knowledges across medical, historical, sociological, cultural, and artistic contexts, paying particular attention to dynamics of race, class, and ability, to global and transnational difference, and to the implications of transgender studies for understanding gender and sexuality overall.

0101	Damien Hagen	Seats (Total: 30)
	MW 1:00pm - 2:15pm	BPS 1236

LGBT386 **Lesbian, Gay, Bisexual, and Transgender Community Organization Internship**

(Perm req)

Credits: 3-6 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP, DVCC

Prerequisite: 9 credits in LGBT courses. Restriction: Permission of LGBT Studies Program.

Supervised internship experience with a community organization that expressly serves lesbian, gay, bisexual, and transgender people. Students will be expected to relate course material to experience in an analysis of an organization's activities.

Contact department for information to register for this course.

LGBT459D **Selected Topics in Sexuality and Literature; Life Writings in Different Media**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Detailed study of sexuality as an aspect of literary and cultural expression.

Repeatable to 9 credits if content differs. Crosslisting with ENGL459C. Credit only granted for ENGL459C or LGBT459D.

0101	Martha Nell Smith	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	TWS 0221

LGBT459M **Selected Topics in Sexuality and Literature; American Poetry: Beginning to the Present**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Detailed study of sexuality as an aspect of literary and cultural expression.

Cross-listed with ENGL435. Credit granted for ENGL435 or LGBT459M.

0101	Martha Nell Smith	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	TWS 1106

LGBT488D **Seminar in Lesbian, Gay, Bisexual, and Transgender Studies; The Queer Politics of Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Developments in theories and methods of LGBT Studies, with emphasis upon interaction between the humanities and the social sciences in the elaboration of this interdisciplinary area of scholarship.

Restriction: Must be a student in LGBTQ Studies certificate (9Z009) or a minor (#US02); or by permission of the department.

0101	Christina Hanhardt M 4:00pm - 6:30pm	Seats (Total: 12) TWS 0134	

LGBT499 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Directed research and analysis in LGBT Studies on a topic selected by the student.

Contact department for information to register for this course.

LING Linguistics Spring 2022

LING200 **Introductory Linguistics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB General Education: DSHS

Credit only granted for: HESP120 or LING200. Additional information: Does not count toward the Linguistics major and does not fulfill prerequisite requirements for all upper-level courses.

An exploration of the nature of human language, designed for non-majors. Introduction to the basic concepts and methodology of modern linguistic analysis (sound systems, word formation, sentence structure). Additional topics may include: semantics, pragmatics, social aspects of language, dialects, language change, acquisition, writing systems, typology, language universals, comparison with other communication systems, etc.

0101	Tonia Bleam MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 30) MMH 1400 MMH 1304	 Discussion
0102	Tonia Bleam MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 30) MMH 1400 MMH 1304	 Discussion

0103	Tonia Bleam	Seats (Total: 30)	
	MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	MMH 1400 MMH 1304	Discussion

LING240 **Language and Mind**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO | General Education: DSHU

Additional information: Required for Linguistics majors and recommended for students in related fields.

The study of language as a cognitive phenomenon. Focus on mastering the concepts and technical skills required for further courses in linguistics. Ways of representing people's knowledge of their native language, ways in which that knowledge is attained naturally by children, and how it is used in speaking and listening. Additional topics may include: animal communication, language and the brain, language and thought.

0101	Margaret Antonisse	Seats (Total: 50)
	MWF 10:00am - 10:50am	VMH 1203

LING248 **Introduction to Laboratory Research in Linguistics**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail

Individualized, collaborative research course aimed at developing skills for laboratory research in language acquisition, sentence processing or neurolinguistics. Learning to conduct research in laboratory linguistics as part of a research team that will create original research in the field.

Prerequisite: Permission of ARHU-Linguistics department.

0101	Jeffrey Lidz	Seats (Total: 4)
	F 10:00am - 10:50am Contact instructor or department for details.	MMH 1108B

LING272 **Biophysics of Language**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNS, SCIS

Examines the nature of mental representation of language in the physiology of the mind/brain, how it evolved, how it emerges in learners' minds, and how it decays through injury and illness. Insights from linguistics, cognitive psychology, neuroscience, animal behavior, molecular biology, and biophysics are brought to bear on how an abstract systematic behavior can arise within an animal brain.

0101	Alexander Chabot MW 10:00am - 11:15am	Seats (Total: 30) MMH 1304

LING311 **Syntax I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: LING240.

Basic concepts, analytical techniques of generative syntax, relation to empirical limits imposed by viewing grammars as representations of a component of human mind. Aspects of current theories.

0101	Tonia Bleam TuTh 11:00am - 12:15pm	Seats (Total: 25) MMH 1304

LING312 **Syntax II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: LING311.

Continuation of LING311. Development of theories of syntax. Criteria for revising theories. Methods and strategies of scientific efforts to explain natural phenomena.

Alternating face-to-face/online class meetings, see the instructor for details.

0101	Omer Preminger TuTh 3:30pm - 4:45pm	Seats (Total: 20) MMH 1304

LING321 **Phonology I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: LING240.

Properties of sound systems of human languages, basic concepts and analytical techniques of generative phonology. Empirical limits imposed by viewing grammars as cognitive representations. Physiological properties and phonological systems; articulatory phonetics and distinctive feature theory.

0101	William Idsardi TuTh 2:00pm - 3:15pm	Seats (Total: 25) MMH 1304

LING322 **Phonology II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: LING321.

Continuation of LING321. Further investigation of phonological phenomena and phonological theory. Revising and elaborating the theory of the phonological representation; interaction of phonology and morphology.

Alternating face-to-face/online class meetings, see the instructor for details.

0101	Alexander Chabot	Seats (Total: 20)
	MW 3:30pm - 4:45pm	MMH 1304

LING330 **Historical Linguistics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: LING321. Recommended: LING311.

A traditional presentation of language change. Language types and families, sounds and writing systems, grammatical categories. Reconstruction of proto-languages by internal and comparative methods.

0101	Margaret Antonisse	Seats (Total: 30)
	TuTh 9:30am - 10:45am	MMH 1304

LING350 **Philosophy of Language**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: LING311; or 2 courses in PHIL and (PHIL170 or PHIL370); or permission of ARHU-Philosophy department. Cross-listed with: PHIL360. Credit only granted for: LING350 or PHIL360.

The nature and function of language and other forms of symbolism from a philosophical perspective.

0101	Alexander Williams	Seats (Total: 40)
	TuTh 9:30am - 10:45am	HBK 0103

LING444 **Child Language Acquisition**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: LING311.

Examines language acquisition in infancy and early childhood: the nature of children's linguistic representations and how these develop naturally. Role of (possible) innate linguistic structure and interaction of such structure with experience. Evaluation of methods and results of current and classic research leading to contemporary models of language development.

Alternating face-to-face/online class meetings, see the instructor for details.

0101	Jeffrey Lidz	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	LEF 1221

LING448 **Advanced Laboratory Research in Linguistics**

(Perm req)

Credits: 2-3 Grading Method: Regular, Pass-Fail

Individualized, collaborative research course aimed at developing skills for laboratory research in language acquisition, sentence processing or neurolinguistics. Conducting a research project in laboratory linguistics as part of a team creating original research relevant to current issues in linguistics.

Prerequisite: Permission of ARHU-Linguistics department.

0101	Jeffrey Lidz	Seats (Total: 4)
	F 11:00am - 11:50am Contact instructor or department for details.	MMH 1108B

LING449J **Topics in Psycholinguistics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Critical evaluation of primary research in psycholinguistics. Relating theoretical hypotheses to experimental hypotheses and predictions. Evaluation of experimental results. Emphasis on hands-on experience and experimental methodologies. Specific topics vary.

Prerequisite: LING311. Examination of the role of context in prediction during sentence processing. (How do people understand words within a particular context? How does the context affect people s predictions of what will come next in the sentence?). Discussion of behavioral and neural measures, as well as computational models of prediction and how they contribute to the theories of predictive processing.

0101	Masato Nakamura	Seats (Total: 10)
	MW 12:00pm - 1:15pm	MMH 1304

LING460 **Diversity and Unity in Human Languages**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit , D

Prerequisite: LING240 or LING200.

Fundamentals of grammatical typology as they relate to issues in social attitudes towards language. Linguistic structure of standard and non-standard languages and dialects. Relationship of different writing systems to linguistic structure. Issues in bilingualism and multilingualism.

0101	Zachary Maher	Seats (Total: 15)
	MW 2:00pm - 3:15pm	MMH 1304

LING499 **Directed Studies in Linguistics**

(Perm req)

Credits: 1-3 | Grading Method: Regular, Pass-Fail, Audit

Independent study or research on language under the supervision of a faculty member.

Contact department for information to register for this course.

LING499C **Directed Studies in Linguistics; Teaching Assistantship**

(Perm req)

Credits: 1-3 | Grading Method: Regular, Pass-Fail, Audit

Independent study or research on language under the supervision of a faculty member.

0101	Margaret Antonisse	Seats (Total: 4)
	Contact instructor or department for details.	
0102	Tonia Bleam	Seats (Total: 4)
	Contact instructor or department for details.	

LING499H **Directed Studies in Linguistics**

(Perm req)

Credits: 1-3 | Grading Method: Regular, Pass-Fail, Audit

Independent study or research on language under the supervision of a faculty member.

Contact department for information to register for this course.

LING611 **Issues in Syntax**

Credits: 3 | Grading Method: Regular, Audit

Prerequisite: LING610.

Topics of current theoretical interest examined through data from a variety of languages.

0101	Omer Preminger	Seats (Total: 10)
	M 2:00pm - 5:00pm	MMH 1108B

LING621 **Issues in Phonology**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: LING620.

Topics of current interest in phonological theory examined through data from several languages.

0101	William Idsardi	Seats (Total: 10)
	TuTh 9:30am - 10:45am	MMH 1108B

LING641 **Issues in Psycholinguistics**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: LING640.

Topics of current interest in psycholinguistics, including both theoretical approaches and experimental and analytical issues in language acquisition, language processing, and neurolinguistics.

Alternating face-to-face/online class meetings, see the instructor for details.

0101	Colin Phillips	Seats (Total: 15)
	MW 12:00pm - 1:30pm	MMH 1108B

LING661 **Issues in Semantics**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: LING660; or permission of ARHU-Linguistics department.

A second course in semantic theory. Application of basic concepts and methods to topics of current theoretical interest.

0101	Valentine Hacquard, Daniel Goodhue	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	MMH 1108B

LING689 **Independent Study**

Credits: 1-3 Grading Method: Regular, Audit

Independent studies in grammatical theory.

Contact department for information to register for this course.

LING689C **Independent Study; Computational Psycholinguistics**

Credits: 1-3 Grading Method: Regular, Audit

Independent studies in grammatical theory.

Explores how ideas from machine learning and computational linguistics can be used to formalize questions about human language. The focus will be on modeling the acquisition, processing, and evolution of language. Covers several popular modeling approaches that have been applied to problems in psycholinguistics.

0101	Instructor: TBA	Seats (Total: 1)
	Contact instructor or department for details.	

LING689T **Independent Study; Pedagogy for Linguistics**

Credits: 1 Grading Method: Regular

Independent studies in grammatical theory.

Designed for novice instructors to collaboratively explore and evaluate methodologies that support teaching improvement and learner achievement.

0101	Tonia Bleam	Seats (Total: 6)
	Contact instructor or department for details.	

LING698 **Directed Study; Seminar**

Credits: 1-3 Grading Method: Regular, Audit

0101	Howard Lasnik	Seats (Total: 2)
	F 2:00pm - 5:00pm	Location: TBA

LING798 **Research Papers in Linguistics**

(Perm req)

Credits: 1-6 Grading Method: Regular

Contact department for information to register for this course.

LING799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

LING819J **Seminar in Syntactic Theory; Ellipsis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Current topics in research on syntactic theory.

Theories of ellipsis from LSLT (and Ross 1969 Guess who?) to the present, including the nature of the phenomenon (deletion, LF copying, or something else?); the identity condition; and repair by ellipsis (What kinds of violations can/can't be repaired?).

0101	Howard Lasnik	Seats (Total: 10)
	Tu 2:00pm - 5:00pm	MMH 1108B

LING848C **Seminar in Computational Linguistics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Current topics in research in computational linguistics.

0101	Philip Resnik	Seats (Total: 20)
	W 2:00pm - 4:30pm	LEF 1171

LING849C **Seminar in Psycholinguistics; Computational Psycholinguistics**

Credits: 3 Grading Method: Regular, Audit

Current topics in research on psycholinguistics.

Explores how ideas from machine learning and computational linguistics can be used to formalize questions about human language. The focus will be on modeling the acquisition, processing, and evolution of language. Covers several popular modeling approaches that have been applied to problems in psycholinguistics.

0101	Instructor: TBA	Seats (Total: 1)
	Contact instructor or department for details.	

LING849D **Seminar in Psycholinguistics; Implementing Cognitive Computations**

Credits: 3 | Grading Method: Regular, Audit

Current topics in research on psycholinguistics.

Cross-listing with NACS728D. Credit only granted for LING849D or NACS728D.

0101	Juan Uriagereka, Naomi Feldman Th 2:00pm - 5:00pm	Seats (Total: 20) MMH 1108B

LING879J **Seminar in Semantics**

Credits: 3 | Grading Method: Regular, Audit, Sat-Fail

Current topics in research in semantics.

0101	Jeffrey Lidz, Valentine Hacquard W 2:00pm - 5:00pm	Seats (Total: 10) MMH 1108B

LING888 **Doctoral Research Paper**

Credits: 1-6 | Grading Method: Regular, Audit

Students will strengthen their abilities to formulate coherent research questions, conduct research and create a publishable piece of work. In addition, the course is part of a set of requirements to advance to doctoral candidacy.

0101	Howard Lasnik Contact instructor or department for details.	Seats (Total: 5)
0401	Jeffrey Lidz Contact instructor or department for details.	Seats (Total: 5)
0601	Juan Uriagereka Contact instructor or department for details.	Seats (Total: 5)
0801	William Idsardi Contact instructor or department for details.	Seats (Total: 5)
0901	Philip Resnik Contact instructor or department for details.	Seats (Total: 5)
1001	Maria Polinsky Contact instructor or department for details.	Seats (Total: 5)

1201	Colin Phillips Contact instructor or department for details.	Seats (Total: 5)
1401	Valentine Hacquard Contact instructor or department for details.	Seats (Total: 5)
1501	Alexander Williams Contact instructor or department for details.	Seats (Total: 5)
1601	Naomi Feldman Contact instructor or department for details.	Seats (Total: 5)
1701	Ellen Lau Contact instructor or department for details.	Seats (Total: 5)
1801	Omer Preminger Contact instructor or department for details.	Seats (Total: 5)

LING889 **Directed Research**

Credits: 1-8 Grading Method: Regular, Audit

Contact department for information to register for this course.

LING896 **Research Paper in Minor Area**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: LING888.

This course is designed to strengthen the students' ability to do research in a minor area of expertise, and to help them create a publishable piece. In addition, the course constitutes part of a set of requirements to advance to doctoral candidacy.

Contact department for information to register for this course.

LING898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

LING899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

MAIT Masters in the Mathematics of Advanced Industrial Tech Spring 2022

MAIT679A **Special Topics in Mathematics of Advanced Industrial Technology**

Credits: 3 Grading Method: Regular, Audit

Special topics courses are intended to expose students to the latest developments in mathematical applications. As such, the content will vary depending on the instructor and the current state-of-the-art. 679 will appear with a letter appended to distinguish different topics. New 679 courses will be added as areas of interest arise.

Contact department for information to register for this course.

MAIT699 **Independent Masters Project**

Credits: 1-3 Grading Method: Regular, Audit

This course allows students to apply advanced mathematical methods to practical, real-world problems. Projects are supervised individually by faculty members from the MAIT Program. The project's nature is flexible and determined jointly by the student and supervisor. A detailed final report must be prepared by the student and approved by the supervisor.

0101	John Benedetto Contact instructor or department for details.	Seats (Total: 5)
0102	Wojciech Czaja Contact instructor or department for details.	Seats (Total: 1)
0501	John Benedetto Contact instructor or department for details.	Seats (Total: 10)
0902	Wojciech Czaja Contact instructor or department for details.	Seats (Total: 10)
2911	Andrew Kebo Contact instructor or department for details.	Seats (Total: 5)

MATH Mathematics Spring 2022

MATH003 **Developmental Mathematics**

Credits: 3 Grading Method: Sat-Fail

A review of Intermediate High School Algebra intended for students preparing for one of the credit bearing Fundamental Studies Math Courses. It is taught in special computer labs using a self-paced computer program. The curriculum will be geared toward the student's level of algebra skills and eventual goals. There is a special fee for the course that may be applied in addition to the regular tuition charge. Students should refer to the schedule of classes for details on fees as they apply to a particular semester. The course does not carry any credit toward any degree at the University. The course is repeatable. Topics will be chosen from exponents, polynomials, linear equations, quadratic equations as well as polynomial, rational, exponential and logarithm functions and elementary probability or statistics, depending on the student.

Students must pay a special math fee.

0601	Colleen Terpos TuTh 8:00am - 10:45am	Seats (Total: 21) CEN 0200
0602	Colleen Terpos TuTh 8:00am - 10:45am	Seats (Total: 21) PHY 4220
0701	Colleen Terpos TuTh 11:00am - 1:45pm	Seats (Total: 21) CEN 0200
0702	Colleen Terpos TuTh 11:00am - 1:45pm	Seats (Total: 21) PHY 4220

MATH007 **Algebra for MATH 107**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A review of Intermediate High School Algebra intended for students preparing for MATH107. It is taught 5 days per week for the first 5 weeks, then leads directly into a special section of MATH107, the same semester, which also meets 5 days per week. Continuation in MATH107 is conditional on the student passing the MATHEMATICS PLACEMENT EXAM at the appropriate level. Topics include linear equations, linear inequalities, operations on polynomials, factoring, solutions of quadratic equations, as well as exponential and logarithm functions. MATH007 does not carry any credit toward any degree at the University, nor is it graded. It leads to either MATH107 or MATH003, both of which are graded.

1201	Franck Olivier Ndjakou Njeunje MTuWThF 12:00pm - 12:50pm	Seats (Total: 20) MTH 0306

MATH013 **Algebra for MATH 113**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A review of Intermediate High School Algebra intended for students preparing for MATH113. It is taught 5 days per week for the first 5 weeks, then leads directly into a special section of MATH113, the same semester, which also meets 5 days per week. Continuation in MATH113 is conditional on the student passing the MATHEMATICS PLACEMENT EXAM at the appropriate level. Topics include exponents, polynomials, linear equations, quadratic equations, as well as polynomial, rational, exponential, and logarithm functions, and trigonometry. MATH013 does not carry any credit toward any degree at the University, nor is it graded. It leads directly to MATH113 (or MATH107), or MATH003, all of which are graded.

1101	Barbara Michelato MTuWThF 10:00am - 10:50am	Seats (Total: 22) MTH 0402
1201	Barbara Michelato MTuWThF 12:00pm - 12:50pm	Seats (Total: 22) MTH 0402

MATH015 **Algebra for MATH 115**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A review of Intermediate High School Algebra intended for students preparing for MATH115. It is taught 5 days per week for the first 5 weeks, then leads directly into a special section of MATH115, the same semester, which also meets 5 days per week. Continuation in MATH115 is conditional on the student passing the MATHEMATICS PLACEMENT EXAM at the appropriate level. Topics include exponents, polynomials, linear equations in one and two variables, quadratic equations, as well as polynomial, rational, exponential, logarithm functions and trigonometry. MATH015 does not carry any credit toward any degree at the University, nor is it graded. It leads directly to MATH115 (or MATH107 or MATH113), or MATH003, all of which are graded.

1101	Ben Bezejouh MTuWThF 10:00am - 10:50am	Seats (Total: 22) ATL 1109
1201	Ben Bezejouh MTuWThF 12:00pm - 12:50pm	Seats (Total: 22) ATL 1109

MATH107 **Introduction to Math Modeling and Probability**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSMA

Prerequisite: Must have math eligibility of Math 107 or higher; and math eligibility is based on Math Placement Exam or successful completion of MATH003 with appropriate eligibility. Restriction: Not open to students majoring in mathematics, engineering, business, life sciences, and the physical sciences;; and must not have completed MATH120, MATH130, MATH136, or MATH140; and must not have completed MATH220; and must not have completed any MATH or STAT course with a prerequisite of MATH120, MATH130, MATH136, MATH140 or MATH220. Credit only granted for: STAT100, MATH107, or MATH113. Formerly: Math 110 and Math 111. Additional information: Students who have credits for MATH107 may not also receive credit for STAT100, or MATH113.

A goal is to convey the power of mathematics as shown by a variety of problems which can be modeled and solved by quantitative means. Also included is an introduction to probability. Topics include data analysis, equations, systems of equations, inequalities, elementary linear programming, Venn diagrams, counting, basic probability, permutations, combinations, tree diagrams, standard normal and normal distributions. The mathematics of finance is covered. The course includes problem solving and decision making in economics, management, and social sciences.

0101	Mirna Pinsky MWF 11:00am - 11:50am	Seats (Total: 25) MTH 0302
0201	Mirna Pinsky MWF 12:00pm - 12:50pm	Seats (Total: 26) MTH 0302
0301	Julie Daberkow MW 1:00pm - 2:15pm	Seats (Total: 27) MTH 0302
0401	Khalil Guy MWF 2:00pm - 2:50pm	Seats (Total: 25) MTH 0201
1201	Franck Olivier Ndjakou Njeunje MTuWThF 12:00pm - 12:50pm	Seats (Total: 20) MTH 0306

MATH113 **College Algebra and Trigonometry**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSMA

Prerequisite: Must have math eligibility of MATH113 or higher; and math eligibility is based on the Math Placement Exam or the successful completion of MATH 003 with appropriate eligibility. Restriction: Must not have completed MATH115, MATH120, MATH130, MATH136, or MATH140; and must not have completed any course with a prerequisite of MATH120, MATH130, MATH136, MATH140 or MATH220; and must not have completed MATH112 or MATH220. Credit only granted for: Students who have credits for MATH113 may not also receive credits for MATH107, MATH110, MATH112, or MATH115.

Topics include elementary functions including graphs and applications of: polynomial, rational, exponential, and logarithmic functions. Systems of equations and applications. Trigonometric functions: angle and radian measure, graphs and applications.

0101	Nathan Janus MWF 10:00am - 10:50am	Seats (Total: 32) MTH 0105
0102	Brandon Kolstoe MWF 10:00am - 10:50am	Seats (Total: 30) MTH 0103
0201	Nathan Janus MWF 11:00am - 11:50am	Seats (Total: 32) MTH 0105
0202	Brandon Kolstoe MWF 11:00am - 11:50am	Seats (Total: 32) MTH 0103
0203	Jacob Erickson MWF 11:00am - 11:50am	Seats (Total: 30) MTH B0429
0301	Morgan Bryant MWF 1:00pm - 1:50pm	Seats (Total: 30) MTH 0105
0302	Jules Metcalf-Burton MWF 1:00pm - 1:50pm	Seats (Total: 27) MTH 0104
0303	Matthew Salinger MWF 1:00pm - 1:50pm	Seats (Total: 22) MTH B0429
0401	Morgan Bryant MWF 2:00pm - 2:50pm	Seats (Total: 30) MTH 0105
0402	Jules Metcalf-Burton MWF 2:00pm - 2:50pm	Seats (Total: 27) MTH 0104
0403	Barbara Michelato MWF 2:00pm - 2:50pm	Seats (Total: 30) MTH 0402
0404	Matthew Salinger MWF 2:00pm - 2:50pm	Seats (Total: 22) MTH B0423
1101	Barbara Michelato MTuWThF 10:00am - 10:50am	Seats (Total: 22) MTH 0402

1201	Barbara Michelato MTuWThF 12:00pm - 12:50pm	Seats (Total: 22) MTH 0402	

MATH115 **Precalculus**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSMA

Prerequisite: Must have math eligibility of MATH115 or higher; and math eligibility is based on the Math Placement Exam or the successful completion of MATH003 with appropriate eligibility. Or MATH113. Restriction: Must not have completed MATH140; and must not have completed any MATH or STAT course with a prerequisite of MATH140. Credit only granted for: Students who have credits for MATH115 may not also receive credits for MATH112 or MATH113.

Preparation for MATH120, MATH130 or MATH140. Elementary functions and graphs: polynomials, rational functions, exponential and logarithmic functions, trigonometric functions. Algebraic techniques preparatory for calculus.

Preparation for MATH 220 or MATH 140. All sections will require the use of a TI graphics calculator. Instructor will use a TI-83 or TI-83+ calculator. If purchasing used books additional software may be required.

0111	Raluca Rosca MWF 9:00am - 9:50am MWF 10:00am - 10:50am	Seats (Total: 26) ESJ 2208 PHY 4207	Discussion
0121	Raluca Rosca MWF 9:00am - 9:50am MWF 11:00am - 11:50am	Seats (Total: 26) ESJ 2208 PHY 4207	Discussion
0131	Raluca Rosca MWF 9:00am - 9:50am MWF 12:00pm - 12:50pm	Seats (Total: 26) ESJ 2208 PHY 4207	Discussion
0141	Raluca Rosca MWF 9:00am - 9:50am MWF 1:00pm - 1:50pm	Seats (Total: 26) ESJ 2208 PHY 4207	Discussion
0151	Raluca Rosca MWF 9:00am - 9:50am TuTh 9:30am - 10:45am	Seats (Total: 26) ESJ 2208 PHY 4207	Discussion

0161	Raluca Rosca MWF 9:00am - 9:50am TuTh 11:00am - 12:15pm	Seats (Total: 27) ESJ 2208 PHY 4207	Discussion
0171	Raluca Rosca MWF 9:00am - 9:50am TuTh 12:30pm - 1:45pm	Seats (Total: 26) ESJ 2208 PHY 4207	Discussion
0181	Raluca Rosca MWF 9:00am - 9:50am TuTh 2:00pm - 3:15pm	Seats (Total: 26) ESJ 2208 PHY 4207	Discussion
1101	Ben Bezejouh MTuWThF 10:00am - 10:50am	Seats (Total: 20) ATL 1109	
1201	Ben Bezejouh MTuWThF 12:00pm - 12:50pm	Seats (Total: 20) ATL 1109	

MATH120 **Elementary Calculus I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSAR, FSMA

Prerequisite: 1 course with a minimum grade of C- from (MATH113, MATH115). Or must have math eligibility of MATH120 or higher; and math eligibility is based on the Math Placement Test. Restriction: Not open to students majoring in mathematics, engineering, the biological sciences, biochemistry, chemistry, or the physical sciences. Credit only granted for: MATH120, MATH130, MATH136, or MATH140.. Formerly: MATH220.

Basic ideas of differential and integral calculus, with emphasis on elementary techniques of differentiation and applications.

0111	Timothy Pilachowski MWF 11:00am - 11:50am Tu 8:00am - 8:50am	Seats (Total: 29) ARM 0135 MTH 0401	Discussion
0121	Timothy Pilachowski MWF 11:00am - 11:50am Tu 9:00am - 9:50am	Seats (Total: 29) ARM 0135 MTH 0401	Discussion
0131	Timothy Pilachowski MWF 11:00am - 11:50am Tu 10:00am - 10:50am	Seats (Total: 29) ARM 0135 MTH 0401	Discussion

0141	Timothy Pilachowski MWF 11:00am - 11:50am Tu 11:00am - 11:50am	Seats (Total: 30) ARM 0135 MTH 0401	Discussion
0211	Archana Khurana MWF 2:00pm - 2:50pm Th 8:00am - 8:50am	Seats (Total: 30) ESJ 0224 MTH 0401	Discussion
0212	Archana Khurana MWF 2:00pm - 2:50pm Th 8:00am - 8:50am	Seats (Total: 29) ESJ 0224 MTH 0409	Discussion
0221	Archana Khurana MWF 2:00pm - 2:50pm Th 9:00am - 9:50am	Seats (Total: 29) ESJ 0224 MTH 0401	Discussion
0222	Archana Khurana MWF 2:00pm - 2:50pm Th 9:00am - 9:50am	Seats (Total: 30) ESJ 0224 MTH 0409	Discussion
0231	Archana Khurana MWF 2:00pm - 2:50pm Th 10:00am - 10:50am	Seats (Total: 30) ESJ 0224 MTH 0401	Discussion
0232	Archana Khurana MWF 2:00pm - 2:50pm Th 10:00am - 10:50am	Seats (Total: 30) ESJ 0224 MTH 0409	Discussion
0241	Archana Khurana MWF 2:00pm - 2:50pm Th 11:00am - 11:50am	Seats (Total: 30) ESJ 0224 MTH 0401	Discussion
0242	Archana Khurana MWF 2:00pm - 2:50pm Th 11:00am - 11:50am	Seats (Total: 30) ESJ 0224 MTH 0409	Discussion
0311	Agnieszka Zelerowicz TuTh 9:30am - 10:45am F 8:00am - 8:50am	Seats (Total: 29) ARM 0131 MTH 0401	Discussion

0312	Agnieszka Zelerowicz TuTh 9:30am - 10:45am F 8:00am - 8:50am	Seats (Total: 29) ARM 0131 MTH 0409	Discussion
0321	Agnieszka Zelerowicz TuTh 9:30am - 10:45am F 9:00am - 9:50am	Seats (Total: 29) ARM 0131 MTH 0401	Discussion
0322	Agnieszka Zelerowicz TuTh 9:30am - 10:45am F 9:00am - 9:50am	Seats (Total: 29) ARM 0131 MTH 0409	Discussion
0331	Agnieszka Zelerowicz TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 29) ARM 0131 MTH 0401	Discussion
0332	Agnieszka Zelerowicz TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 29) ARM 0131 MTH 0409	Discussion
0341	Agnieszka Zelerowicz TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 29) ARM 0131 MTH 0401	Discussion
0342	Agnieszka Zelerowicz TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 29) ARM 0131 MTH 0409	Discussion
0411	Xiaoqi Huang TuTh 11:00am - 12:15pm W 8:00am - 8:50am	Seats (Total: 29) ARM 0131 MTH 0401	Discussion
0412	Xiaoqi Huang TuTh 11:00am - 12:15pm W 8:00am - 8:50am	Seats (Total: 29) ARM 0131 MTH 0409	Discussion
0421	Xiaoqi Huang TuTh 11:00am - 12:15pm W 9:00am - 9:50am	Seats (Total: 29) ARM 0131 MTH 0401	Discussion

0422	Xiaoqi Huang TuTh 11:00am - 12:15pm W 9:00am - 9:50am	Seats (Total: 29) ARM 0131 MTH 0409	Discussion
0431	Xiaoqi Huang TuTh 11:00am - 12:15pm W 10:00am - 10:50am	Seats (Total: 29) ARM 0131 MTH 0401	Discussion
0432	Xiaoqi Huang TuTh 11:00am - 12:15pm W 10:00am - 10:50am	Seats (Total: 29) ARM 0131 MTH 0409	Discussion
0441	Xiaoqi Huang TuTh 11:00am - 12:15pm W 11:00am - 11:50am	Seats (Total: 29) ARM 0131 MTH 0401	Discussion
0442	Xiaoqi Huang TuTh 11:00am - 12:15pm W 11:00am - 11:50am	Seats (Total: 29) ARM 0131 MTH 0409	Discussion

MATH121 **Elementary Calculus II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH120, MATH130, MATH136, or MATH140. Restriction: Not open to students majoring in mathematics, engineering, the biological sciences, biochemistry, chemistry, or the physical sciences. Credit only granted for: MATH121, MATH131, or MATH141.. Formerly: MATH 221.

Trigonometric functions, techniques of integration, infinite series, differential equations, probability.

0101	Samuel Bachhuber MWF 12:00pm - 12:50pm	Seats (Total: 25) MTH 1311	
0201	Samuel Bachhuber MWF 1:00pm - 1:50pm	Seats (Total: 25) MTH 1311	

MATH135 **Discrete Mathematics for Life Sciences**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit General Education: FSAR, FSMA

Prerequisite: Minimum grade of C- in MATH113 or MATH115; or must have math eligibility of MATH120 or higher; and math eligibility is based on the Math Placement Test. Restriction: Must be in the Biological Sciences or Neuroscience major; and not open to students majoring in mathematics, engineering, or the physical sciences.

Basic discrete mathematics, with emphasis on relevant models and techniques to the life sciences.

0111	Jakob Hultgren TuTh 9:30am - 10:45am MW 9:00am - 9:50am	Seats (Total: 28) ARM 0135 MTH B0425	 Discussion
0121	Jakob Hultgren TuTh 9:30am - 10:45am MW 10:00am - 10:50am	Seats (Total: 28) ARM 0135 MTH B0425	 Discussion
0131	Jakob Hultgren TuTh 9:30am - 10:45am MW 11:00am - 11:50am	Seats (Total: 28) ARM 0135 MTH B0425	 Discussion
0132	Jakob Hultgren TuTh 9:30am - 10:45am MW 11:00am - 11:50am	Seats (Total: 27) ARM 0135 MTH B0427	 Discussion
0141	Jakob Hultgren TuTh 9:30am - 10:45am MW 12:00pm - 12:50pm	Seats (Total: 27) ARM 0135 MTH B0425	 Discussion
0142	Jakob Hultgren TuTh 9:30am - 10:45am MW 12:00pm - 12:50pm	Seats (Total: 27) ARM 0135 MTH B0429	 Discussion

MATH136 **Calculus for Life Sciences**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH135. Restriction: Must be in the Biological Sciences or Neuroscience major. Credit only granted for: MATH120, MATH130, MATH136, or MATH140.

Continuation of MATH135, including basic ideas of differential and integral calculus, with emphasis on elementary techniques and applications to the life sciences.

0111	Hussain Ibdah TuTh 9:30am - 10:45am MF 9:00am - 9:50am	Seats (Total: 25) ARM 0126 MTH 1308	Discussion
0121	Hussain Ibdah TuTh 9:30am - 10:45am MF 10:00am - 10:50am	Seats (Total: 25) ARM 0126 MTH 1308	Discussion
0131	Hussain Ibdah TuTh 9:30am - 10:45am MF 11:00am - 11:50am	Seats (Total: 25) ARM 0126 MTH 1308	Discussion
0141	Hussain Ibdah TuTh 9:30am - 10:45am MF 12:00pm - 12:50pm	Seats (Total: 25) ARM 0126 MTH 1308	Discussion
0211	Changguang Dong TuTh 12:30pm - 1:45pm WF 9:00am - 9:50am	Seats (Total: 25) ARM 0135 MTH B0423	Discussion
0221	Changguang Dong TuTh 12:30pm - 1:45pm WF 10:00am - 10:50am	Seats (Total: 25) ARM 0135 MTH B0423	Discussion
0231	Changguang Dong TuTh 12:30pm - 1:45pm WF 11:00am - 11:50am	Seats (Total: 25) ARM 0135 MTH B0423	Discussion
0241	Changguang Dong TuTh 12:30pm - 1:45pm WF 12:00pm - 12:50pm	Seats (Total: 25) ARM 0135 MTH B0423	Discussion

MATH140 **Calculus I**

Credits: 4	Grading Method: Regular, Pass-Fail, Audit	CORE: MS	General Education: FSAR, FSMA

Prerequisite: Minimum grade of C- in MATH115. Credit only granted for: MATH120, MATH130, MATH136, or MATH140.

Introduction to calculus, including functions, limits, continuity, derivatives and applications of the derivative, sketching of graphs of functions, definite and indefinite integrals, and calculation of area. The course is especially recommended for science, engineering and mathematics majors.

Graphing calculators, or computers, etc., with software appropriate for graphing non-trivial functions and doing non-trivial calculations, will be needed.

0111	Jose Rigoberto Enrique Zelada Cifuentes MWF 10:00am - 10:50am TuTh 8:00am - 8:50am	Seats (Total: 28) ARM 0131 MTH 0407	Discussion
0112	Jose Rigoberto Enrique Zelada Cifuentes MWF 10:00am - 10:50am TuTh 8:00am - 8:50am	Seats (Total: 28) ARM 0131 MTH 0403	Discussion
0113	Jose Rigoberto Enrique Zelada Cifuentes MWF 10:00am - 10:50am TuTh 8:00am - 8:50am	Seats (Total: 28) ARM 0131 MTH 0405	Discussion
0121	Jose Rigoberto Enrique Zelada Cifuentes MWF 10:00am - 10:50am TuTh 9:00am - 9:50am	Seats (Total: 28) ARM 0131 MTH 0407	Discussion
0122	Jose Rigoberto Enrique Zelada Cifuentes MWF 10:00am - 10:50am TuTh 9:00am - 9:50am	Seats (Total: 28) ARM 0131 MTH 0403	Discussion
0123	Jose Rigoberto Enrique Zelada Cifuentes MWF 10:00am - 10:50am TuTh 9:00am - 9:50am	Seats (Total: 28) ARM 0131 MTH 0405	Discussion
0131	Jose Rigoberto Enrique Zelada Cifuentes MWF 10:00am - 10:50am TuTh 10:00am - 10:50am	Seats (Total: 28) ARM 0131 MTH 0407	Discussion
0132	Jose Rigoberto Enrique Zelada Cifuentes MWF 10:00am - 10:50am TuTh 10:00am - 10:50am	Seats (Total: 28) ARM 0131 MTH 0403	Discussion
0141	Jose Rigoberto Enrique Zelada Cifuentes MWF 10:00am - 10:50am TuTh 11:00am - 11:50am	Seats (Total: 29) ARM 0131 MTH 0407	Discussion
0142	Jose Rigoberto Enrique Zelada Cifuentes MWF 10:00am - 10:50am TuTh 11:00am - 11:50am	Seats (Total: 28) ARM 0131 MTH 0403	Discussion

0211	Eoin Mackall MWF 11:00am - 11:50am TuTh 12:00pm - 12:50pm	Seats (Total: 29) ARM 0126 MTH B0425	Discussion
0212	Eoin Mackall MWF 11:00am - 11:50am TuTh 12:00pm - 12:50pm	Seats (Total: 29) ARM 0126 MTH 0307	Discussion
0221	Eoin Mackall MWF 11:00am - 11:50am TuTh 1:00pm - 1:50pm	Seats (Total: 29) ARM 0126 MTH B0425	Discussion
0222	Eoin Mackall MWF 11:00am - 11:50am TuTh 1:00pm - 1:50pm	Seats (Total: 28) ARM 0126 MTH 0307	Discussion
0231	Eoin Mackall MWF 11:00am - 11:50am TuTh 2:00pm - 2:50pm	Seats (Total: 28) ARM 0126 MTH B0425	Discussion
0241	Eoin Mackall MWF 11:00am - 11:50am TuTh 3:00pm - 3:50pm	Seats (Total: 28) ARM 0126 MTH B0425	Discussion
0311	Kendall Williams MWF 12:00pm - 12:50pm TuTh 10:00am - 10:50am	Seats (Total: 30) IRB 0318 MTH 0405	Discussion
0321	Kendall Williams MWF 12:00pm - 12:50pm TuTh 1:00pm - 1:50pm	Seats (Total: 30) IRB 0318 MTH 0402	Discussion

MATH141 **Calculus II**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: MS

Prerequisite: Minimum grade of C- in MATH140. Credit only granted for: MATH121, MATH131, or MATH141..

Continuation of MATH140, including techniques of integration, improper integrals, applications of integration (such as volumes, work, arc length, moments), inverse functions, exponential and logarithmic functions, sequences and series.

Graphing calculators, or computers, etc., with software appropriate for graphing non-trivial functions and doing non-trivial calculations, will be needed.

0111	Denny Gulick MWF 8:00am - 8:50am TuTh 8:00am - 9:20am	Seats (Total: 23) PHY 1412 MTH 0102	Discussion
0112	Denny Gulick MWF 8:00am - 8:50am TuTh 8:00am - 9:20am	Seats (Total: 23) PHY 1412 MTH 0303	Discussion
0113	Denny Gulick MWF 8:00am - 8:50am TuTh 8:00am - 9:20am	Seats (Total: 23) PHY 1412 MTH 0302	Discussion
0121	Denny Gulick MWF 8:00am - 8:50am TuTh 9:30am - 10:50am	Seats (Total: 23) PHY 1412 MTH 0102	Discussion
0122	Denny Gulick MWF 8:00am - 8:50am TuTh 9:30am - 10:50am	Seats (Total: 23) PHY 1412 MTH 0303	Discussion
0123	Denny Gulick MWF 8:00am - 8:50am TuTh 9:30am - 10:50am	Seats (Total: 23) PHY 1412 MTH 0302	Discussion
0131	Denny Gulick MWF 8:00am - 8:50am TuTh 11:00am - 12:20pm	Seats (Total: 23) PHY 1412 MTH 0102	Discussion
0132	Denny Gulick MWF 8:00am - 8:50am TuTh 11:00am - 12:20pm	Seats (Total: 23) PHY 1412 MTH 0302	Discussion
0211	Timothy Pilachowski MWF 9:00am - 9:50am TuTh 8:00am - 9:20am	Seats (Total: 23) ESJ 0202 ESJ 2212	Discussion
0212	Timothy Pilachowski MWF 9:00am - 9:50am TuTh 8:00am - 9:20am	Seats (Total: 23) ESJ 0202 ESJ 2212	Discussion

0213	Timothy Pilachowski MWF 9:00am - 9:50am TuTh 8:00am - 9:20am	Seats (Total: 23) ESJ 0202 ESJ 2212	 Discussion
0221	Timothy Pilachowski MWF 9:00am - 9:50am TuTh 9:30am - 10:50am	Seats (Total: 23) ESJ 0202 ESJ 2212	 Discussion
0222	Timothy Pilachowski MWF 9:00am - 9:50am TuTh 9:30am - 10:50am	Seats (Total: 23) ESJ 0202 ESJ 2212	 Discussion
0223	Timothy Pilachowski MWF 9:00am - 9:50am TuTh 9:30am - 10:50am	Seats (Total: 23) ESJ 0202 ESJ 2212	 Discussion
0231	Timothy Pilachowski MWF 9:00am - 9:50am TuTh 11:00am - 12:20pm	Seats (Total: 23) ESJ 0202 EGR 3114	 Discussion
0232	Timothy Pilachowski MWF 9:00am - 9:50am TuTh 11:00am - 12:20pm	Seats (Total: 23) ESJ 0202 BPS 1234	 Discussion
0311	Hatice Sahinoglu MWF 12:00pm - 12:50pm TuTh 11:00am - 12:20pm	Seats (Total: 23) ARM 0131 MTH 0105	 Discussion
0313	Hatice Sahinoglu MWF 12:00pm - 12:50pm TuTh 11:00am - 12:20pm	Seats (Total: 23) ARM 0131 MTH 0305	 Discussion
0321	Hatice Sahinoglu MWF 12:00pm - 12:50pm TuTh 12:30pm - 1:50pm	Seats (Total: 23) ARM 0131 MTH 0105	 Discussion
0323	Hatice Sahinoglu MWF 12:00pm - 12:50pm TuTh 12:30pm - 1:50pm	Seats (Total: 23) ARM 0131 MTH 0305	 Discussion

0331	Hatice Sahinoglu MWF 12:00pm - 12:50pm TuTh 2:00pm - 3:20pm	Seats (Total: 23) ARM 0131 MTH 0105	 Discussion
0332	Hatice Sahinoglu MWF 12:00pm - 12:50pm TuTh 2:00pm - 3:20pm	Seats (Total: 23) ARM 0131 MTH 0102	 Discussion
0411	Todd Rowland MWF 1:00pm - 1:50pm TuTh 11:00am - 12:20pm	Seats (Total: 25) ESJ 0224 MTH 0405	 Discussion
0412	Todd Rowland MWF 1:00pm - 1:50pm TuTh 11:00am - 12:20pm	Seats (Total: 25) ESJ 0224 MTH 1313	 Discussion
0413	Todd Rowland MWF 1:00pm - 1:50pm TuTh 11:00am - 12:20pm	Seats (Total: 25) ESJ 0224 MTH 0411	 Discussion
0421	Todd Rowland MWF 1:00pm - 1:50pm TuTh 12:30pm - 1:50pm	Seats (Total: 25) ESJ 0224 MTH 0405	 Discussion
0422	Todd Rowland MWF 1:00pm - 1:50pm TuTh 12:30pm - 1:50pm	Seats (Total: 25) ESJ 0224 MTH 1313	 Discussion
0423	Todd Rowland MWF 1:00pm - 1:50pm TuTh 12:30pm - 1:50pm	Seats (Total: 25) ESJ 0224 MTH 0411	 Discussion
0431	Todd Rowland MWF 1:00pm - 1:50pm TuTh 2:00pm - 3:20pm	Seats (Total: 25) ESJ 0224 MTH 0405	 Discussion
0432	Todd Rowland MWF 1:00pm - 1:50pm TuTh 2:00pm - 3:20pm	Seats (Total: 25) ESJ 0224 MTH 0411	 Discussion

0511	Steven Chadwick MWF 2:00pm - 2:50pm TuTh 12:30pm - 1:50pm	Seats (Total: 24) ARM 0135 MTH B0421	Discussion
0512	Steven Chadwick MWF 2:00pm - 2:50pm TuTh 12:30pm - 1:50pm	Seats (Total: 24) ARM 0135 MTH 0104	Discussion
0513	Steven Chadwick MWF 2:00pm - 2:50pm TuTh 12:30pm - 1:50pm	Seats (Total: 24) ARM 0135 MTH 0302	Discussion
0521	Steven Chadwick MWF 2:00pm - 2:50pm TuTh 2:00pm - 3:20pm	Seats (Total: 25) ARM 0135 MTH B0423	Discussion
0522	Steven Chadwick MWF 2:00pm - 2:50pm TuTh 2:00pm - 3:20pm	Seats (Total: 25) ARM 0135 MTH 0104	Discussion
0523	Steven Chadwick MWF 2:00pm - 2:50pm TuTh 2:00pm - 3:20pm	Seats (Total: 25) ARM 0135 MTH 0304	Discussion
0531	Steven Chadwick MWF 2:00pm - 2:50pm TuTh 3:30pm - 4:50pm	Seats (Total: 24) ARM 0135 MTH B0423	Discussion
0532	Steven Chadwick MWF 2:00pm - 2:50pm TuTh 3:30pm - 4:50pm	Seats (Total: 24) ARM 0135 MTH 0104	Discussion

MATH141H **Calculus II**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: MS

Prerequisite: Minimum grade of C- in MATH140. Credit only granted for: MATH121, MATH131, or MATH141..

Continuation of MATH140, including techniques of integration, improper integrals, applications of integration (such as volumes, work, arc length, moments), inverse functions, exponential and logarithmic functions, sequences and series.

For Honors College students only. Graphing calculators, or computers, etc., with software appropriate for graphing non-trivial functions and doing non-trivial calculations, will be needed.

0101	Steven Chadwick W 10:00am - 11:50am MF 10:00am - 10:50am	Seats (Total: 21) ITV 1111 ITV 1111
0201	Jose Rigoberto Enrique Zelada Cifuentes M 12:00pm - 1:50pm WF 12:00pm - 12:50pm	Seats (Total: 20) MTH B0427 MTH B0427

MATH199A **Special Topics in Mathematics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Many games have a mathematical component. We will introduce several games, play them, and investigate the underlying mathematics. Students will work in teams on projects that involve developing strategies for new games.

Contact department for information to register for this course.

MATH206 **Introduction to Matlab**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH136, MATH140).

This course is intended to prepare students for subsequent courses requiring computation with MATLAB. Covers basics of MATLAB including simple commands, variables, solving equations, graphing differentiation and integration, matrices and vectors, functions, M-files and fundamentals of programming in the MATLAB environment. When offered in Winter and Summer terms, the course is offered in a format suitable for online distance learning.

0101	Justin Wyss-Gallifent **Meets January 24, 2022 - March 3, 2022** Class time/details on ELMs	Seats (Total: 545) ONLINE

MATH212 **Elements of Numbers and Operations**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed one year of college preparatory algebra. Restriction: Must be in one of the following programs (Early Childhood Education; Special Education; Elementary Education).

Reviews and extends topics of arithmetic and number theory related to the elementary school curriculum, particularly number systems and operations with natural numbers, integers, and rationals.

0201	Carolina Napp-Avelli MWF 9:00am - 9:50am	Seats (Total: 25) PHY 2106
0301	Matthew Wilson MWF 1:00pm - 1:50pm	Seats (Total: 27) ASY 3219

MATH213 **Elements of Geometry and Measurement**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH212. Restriction: Must be in one of the following programs (Early Childhood Education; Special Education; Elementary Education).

Properties of geometric objects in two and three dimensions; parallel lines, curves and polygons; ratio, proportion, similarity; transformational geometry and measurement, constructions, justifications and proofs.

0201	Jermain McDermott MWF 11:00am - 11:50am	Seats (Total: 22) ASY 3219
0301	Jermain McDermott MWF 12:00pm - 12:50pm	Seats (Total: 22) ASY 3219

MATH214 **Elements of Probability and Statistics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH212. Restriction: Must be in one of the following programs (Early Childhood Education; Special Education; Elementary Education).

Permutations and combinations; probability; collecting and representing data; using statistics to analyze and interpret data.

0201	Karen McLaren MWF 9:00am - 9:50am	Seats (Total: 22) MTH 0105

MATH240 **Introduction to Linear Algebra**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH131, MATH141). Credit only granted for: MATH240, MATH341, or MATH461.

Basic concepts of linear algebra: vector spaces, applications to line and plane geometry, linear equations and matrices, similar matrices, linear transformations, eigenvalues, determinants and quadratic forms.

All Sections will use MATLAB.

0111	Nathan Manning MWF 12:00pm - 12:50pm TuTh 12:00pm - 12:50pm	Seats (Total: 27) ARM 0135 MTH 0101	Discussion
0112	Nathan Manning MWF 12:00pm - 12:50pm TuTh 12:00pm - 12:50pm	Seats (Total: 27) ARM 0135 MTH B0427	Discussion
0113	Nathan Manning MWF 12:00pm - 12:50pm TuTh 12:00pm - 12:50pm	Seats (Total: 27) ARM 0135 EGR 2116	Discussion
0121	Nathan Manning MWF 12:00pm - 12:50pm TuTh 1:00pm - 1:50pm	Seats (Total: 27) ARM 0135 MTH 0101	Discussion
0122	Nathan Manning MWF 12:00pm - 12:50pm TuTh 1:00pm - 1:50pm	Seats (Total: 27) ARM 0135 MTH B0427	Discussion
0123	Nathan Manning MWF 12:00pm - 12:50pm TuTh 1:00pm - 1:50pm	Seats (Total: 27) ARM 0135 MTH 0401	Discussion
0131	Nathan Manning MWF 12:00pm - 12:50pm TuTh 2:00pm - 2:50pm	Seats (Total: 27) ARM 0135 MTH 0101	Discussion
0141	Nathan Manning MWF 12:00pm - 12:50pm TuTh 3:00pm - 3:50pm	Seats (Total: 27) ARM 0135 MTH 0101	Discussion

0211	Terence Long MWF 1:00pm - 1:50pm TuTh 9:00am - 9:50am	Seats (Total: 29) ARM 0131 MTH B0423	 Discussion
0212	Terence Long MWF 1:00pm - 1:50pm TuTh 9:00am - 9:50am	Seats (Total: 29) ARM 0131 MTH 0101	 Discussion
0213	Terence Long MWF 1:00pm - 1:50pm TuTh 9:00am - 9:50am	Seats (Total: 29) ARM 0131 MTH 0105	 Discussion
0221	Terence Long MWF 1:00pm - 1:50pm TuTh 10:00am - 10:50am	Seats (Total: 29) ARM 0131 MTH B0423	 Discussion
0222	Terence Long MWF 1:00pm - 1:50pm TuTh 10:00am - 10:50am	Seats (Total: 30) ARM 0131 MTH 0101	 Discussion
0223	Terence Long MWF 1:00pm - 1:50pm TuTh 10:00am - 10:50am	Seats (Total: 29) ARM 0131 MTH 0105	 Discussion
0231	Terence Long MWF 1:00pm - 1:50pm TuTh 11:00am - 11:50am	Seats (Total: 30) ARM 0131 MTH B0423	 Discussion
0241	Terence Long MWF 1:00pm - 1:50pm TuTh 12:00pm - 12:50pm	Seats (Total: 29) ARM 0131 MTH B0423	 Discussion
0311	Wiseley Wong MWF 2:00pm - 2:50pm W 3:00pm - 3:50pm	Seats (Total: 30) PHY 2211 PHY 2211	 Discussion

MATH241 **Calculus III**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH141. Credit only granted for: MATH241 or MATH340.

Introduction to multivariable calculus, including vectors and vector-valued functions, partial derivatives and applications of partial derivatives (such as tangent planes and Lagrange multipliers), multiple integrals, volume, surface area, and the classical theorems of Green, Stokes and Gauss.

All sections will use MATLAB.

0111	Roohollah Ebrahimian MWF 9:00am - 9:50am TuTh 8:00am - 8:50am	Seats (Total: 28) BRB 1101 MTH B0429	Discussion
0112	Roohollah Ebrahimian MWF 9:00am - 9:50am TuTh 8:00am - 8:50am	Seats (Total: 28) BRB 1101 MTH B0425	Discussion
0121	Roohollah Ebrahimian MWF 9:00am - 9:50am TuTh 9:30am - 10:20am	Seats (Total: 28) BRB 1101 MTH B0429	Discussion
0122	Roohollah Ebrahimian MWF 9:00am - 9:50am TuTh 9:30am - 10:20am	Seats (Total: 28) BRB 1101 MTH B0425	Discussion
0131	Roohollah Ebrahimian MWF 9:00am - 9:50am TuTh 12:30pm - 1:20pm	Seats (Total: 30) BRB 1101 MTH 0303	Discussion
0141	Roohollah Ebrahimian MWF 9:00am - 9:50am TuTh 2:00pm - 2:50pm	Seats (Total: 28) BRB 1101 MTH 0303	Discussion
0211	David Hamilton MWF 11:00am - 11:50am TuTh 8:00am - 8:50am	Seats (Total: 30) ESJ 2208 MTH 0103	Discussion
0221	David Hamilton MWF 11:00am - 11:50am TuTh 9:30am - 10:20am	Seats (Total: 30) ESJ 2208 MTH 0103	Discussion
0231	David Hamilton MWF 11:00am - 11:50am TuTh 11:00am - 11:50am	Seats (Total: 30) ESJ 2208 MTH 0103	Discussion

0241	David Hamilton MWF 11:00am - 11:50am TuTh 12:30pm - 1:20pm	Seats (Total: 30) ESJ 2208 MTH 0103	Discussion
0311	Justin Wyss-Gallifent MWF 12:00pm - 12:50pm TuTh 8:00am - 8:50am	Seats (Total: 30) IRB 0324 ESJ 1215	Discussion
0312	Justin Wyss-Gallifent MWF 12:00pm - 12:50pm TuTh 8:00am - 8:50am	Seats (Total: 29) IRB 0324 ESJ 1215	Discussion
0321	Justin Wyss-Gallifent MWF 12:00pm - 12:50pm TuTh 9:00am - 9:50am	Seats (Total: 29) IRB 0324 ESJ 1215	Discussion
0322	Justin Wyss-Gallifent MWF 12:00pm - 12:50pm TuTh 9:00am - 9:50am	Seats (Total: 29) IRB 0324 ESJ 1215	Discussion
0331	Justin Wyss-Gallifent MWF 12:00pm - 12:50pm TuTh 10:00am - 10:50am	Seats (Total: 30) IRB 0324 ESJ 1215	Discussion
0341	Justin Wyss-Gallifent MWF 12:00pm - 12:50pm TuTh 11:00am - 11:50am	Seats (Total: 30) IRB 0324 ESJ 1215	Discussion

MATH241H **Calculus III**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH141. Credit only granted for: MATH241 or MATH340.

Introduction to multivariable calculus, including vectors and vector-valued functions, partial derivatives and applications of partial derivatives (such as tangent planes and Lagrange multipliers), multiple integrals, volume, surface area, and the classical theorems of Green, Stokes and Gauss.

For Honors College students only. MATH 241H will use MATLAB.

0101	Allan Yashinski MWF 10:00am - 10:50am W 11:00am - 11:50am	Seats (Total: 20) MTH 0307 MTH 0307	
0301	Roohollah Ebrahimian MWF 2:00pm - 2:50pm W 3:00pm - 3:50pm	Seats (Total: 20) MTH 0405 MTH 0405	

MATH246 **Differential Equations for Scientists and Engineers**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH141. Credit only granted for: MATH246 or MATH341.

An introduction to the basic methods of solving ordinary differential equations. Equations of first and second order, linear differential equations, Laplace transforms, numerical methods and the qualitative theory of differential equations.

All sections will use MATLAB.

0111	Kendall Williams MWF 10:00am - 10:50am Tu 8:00am - 8:50am	Seats (Total: 27) ARM 0126 MTH 0104	 Discussion
0113	Kendall Williams MWF 10:00am - 10:50am Tu 8:00am - 8:50am	Seats (Total: 25) ARM 0126 ATL 1109	 Discussion
0121	Kendall Williams MWF 10:00am - 10:50am Tu 9:00am - 9:50am	Seats (Total: 27) ARM 0126 MTH 0104	 Discussion
0123	Kendall Williams MWF 10:00am - 10:50am Tu 9:00am - 9:50am	Seats (Total: 27) ARM 0126 ATL 1109	 Discussion
0131	Kendall Williams MWF 10:00am - 10:50am Tu 10:00am - 10:50am	Seats (Total: 27) ARM 0126 MTH 0104	 Discussion

0141	Kendall Williams MWF 10:00am - 10:50am Tu 11:00am - 11:50am	Seats (Total: 27) ARM 0126 MTH 0104	Discussion
0211	Stefan Doboszczak MWF 3:00pm - 3:50pm Th 8:00am - 8:50am	Seats (Total: 27) ARM 0126 MTH 0104	Discussion
0212	Stefan Doboszczak MWF 3:00pm - 3:50pm Th 8:00am - 8:50am	Seats (Total: 27) ARM 0126 MTH 1308	Discussion
0213	Stefan Doboszczak MWF 3:00pm - 3:50pm Th 8:00am - 8:50am	Seats (Total: 27) ARM 0126 ATL 1109	Discussion
0221	Stefan Doboszczak MWF 3:00pm - 3:50pm Th 9:00am - 9:50am	Seats (Total: 27) ARM 0126 MTH 0104	Discussion
0222	Stefan Doboszczak MWF 3:00pm - 3:50pm Th 9:00am - 9:50am	Seats (Total: 27) ARM 0126 MTH 1308	Discussion
0223	Stefan Doboszczak MWF 3:00pm - 3:50pm Th 9:00am - 9:50am	Seats (Total: 27) ARM 0126 ATL 1109	Discussion
0231	Stefan Doboszczak MWF 3:00pm - 3:50pm Th 10:00am - 10:50am	Seats (Total: 27) ARM 0126 MTH 0104	Discussion
0232	Stefan Doboszczak MWF 3:00pm - 3:50pm Th 10:00am - 10:50am	Seats (Total: 27) ARM 0126 MTH 1308	Discussion
0241	Stefan Doboszczak MWF 3:00pm - 3:50pm Th 11:00am - 11:50am	Seats (Total: 27) ARM 0126 MTH B0427	Discussion

0242	Stefan Doboszczak MWF 3:00pm - 3:50pm Th 11:00am - 11:50am	Seats (Total: 27) ARM 0126 MTH 1308	Discussion
0311	Rodrigo Trevino TuTh 12:30pm - 1:45pm W 8:00am - 8:50am	Seats (Total: 27) ARM 0126 MTH 0303	Discussion
0313	Rodrigo Trevino TuTh 12:30pm - 1:45pm W 8:00am - 8:50am	Seats (Total: 27) ARM 0126 MTH 0307	Discussion
0321	Rodrigo Trevino TuTh 12:30pm - 1:45pm W 9:00am - 9:50am	Seats (Total: 27) ARM 0126 MTH 0303	Discussion
0323	Rodrigo Trevino TuTh 12:30pm - 1:45pm W 9:00am - 9:50am	Seats (Total: 27) ARM 0126 MTH 0307	Discussion
0331	Rodrigo Trevino TuTh 12:30pm - 1:45pm W 10:00am - 10:50am	Seats (Total: 27) ARM 0126 MTH 0303	Discussion
0341	Rodrigo Trevino TuTh 12:30pm - 1:45pm W 11:00am - 11:50am	Seats (Total: 27) ARM 0126 MTH 0303	Discussion

MATH246H **Differential Equations for Scientists and Engineers**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH141. Credit only granted for: MATH246 or MATH341.

An introduction to the basic methods of solving ordinary differential equations. Equations of first and second order, linear differential equations, Laplace transforms, numerical methods and the qualitative theory of differential equations.

For Honors College students only. MATH 246H will use MATLAB.

0101	Kendall Williams MWF 2:00pm - 2:50pm	Seats (Total: 27) MTH 0407	

0201	Terence Long	Seats (Total: 27)
	MWF 11:00am - 11:50am	PHY 1402

MATH274 **History of Mathematics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: IE

Prerequisite: MATH120, MATH130, MATH136, or MATH140; or must have completed MATH220.

An overview of aspects in the history of mathematics from its beginning in the concrete problem solving of ancient times through the development of abstraction in the 19th and 20th centuries. The course considers both mathematical ideas and the context in which they developed in various civilizations around the world.

MATH 274 cannot satisfy a CMSC major requirement.

0101	Raluca Rosca	Seats (Total: 20)
	MWF 2:00pm - 2:50pm	MTH 0303

MATH299C **Selected Topics in Mathematics; Mathematics and Music**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest under the general guidance of the departmental committee on undergraduate studies.

0101	Niranjan Ramachandran	Seats (Total: 22)
	M 1:00pm - 1:50pm	MTH 0303

MATH299E **Selected Topics in Mathematics; The Mathematics of Erdos**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest under the general guidance of the departmental committee on undergraduate studies.

0101	Wiseley Wong	Seats (Total: 20)
	F 12:00pm - 12:50pm	MTH 0303

MATH299Y **Selected Topics in Mathematics; Teaching Math to a Young Audience**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Topics of special interest under the general guidance of the departmental committee on undergraduate studies.

0101	Justin Wyss-Gallifent W 1:00pm - 1:50pm	Seats (Total: 22) MTH 0303

MATH310 **Introduction to Mathematical Proof**

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in MATH141; and must have completed or be concurrently enrolled in MATH240, MATH341, or MATH461; and must have completed or be concurrently enrolled in MATH241 or MATH340. Restriction: Must be in a major within the CMNS-Mathematics department; or permission of the CMNS-Mathematics department. Additional information: Math majors may not use this course to satisfy an upper-level requirement.

To develop the students' ability to construct a rigorous proof of a mathematical claim. Students will also be made aware of mathematical results that are of interest to those wishing to analyze a particular mathematical model. Topics will be drawn from logic, set theory, structure of the number line, elementary topology, metric spaces, functions, sequences and continuity.

0101	Steve Halperin MWF 9:00am - 9:50am	Seats (Total: 28) PHY 2213
0201	Kathryn Truman MWF 10:00am - 10:50am	Seats (Total: 30) PHY 2214
0301	Nathan Manning MWF 3:00pm - 3:50pm	Seats (Total: 30) PHY 2122
0401	Karin Melnick TuTh 9:30am - 10:45am	Seats (Total: 28) MTH 1311

MATH312 **Mathematical Reasoning and Proof for Pre-Service Middle School Teachers**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH212 and MATH213. Restriction: Must be in one of the following programs (Elementary Education; Special Education; Middle School Education).

Reasoning and proof as addressed in the middle school curriculum. Topics include proportional reasoning, logic and proof, types of numbers, field axioms, Euclidean and non-Euclidean geometry.

0101	Sean Gruber MW 3:30pm - 4:45pm	Seats (Total: 25) TWS 0214

MATH314 **Introduction to Probability, Data, Analysis and Statistics for Preservice Middle School Teachers**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH214. Restriction: Must be in one of the following programs (Elementary Education; Special Education; Middle School Education). Credit only granted for: MATH314 or STAT100.

Analysis of bivariate data, probability and randomness, law of large numbers, central limit theorem, probabilities for independent and dependent events, counting techniques, random variables and probability distributions, expected values, sampling distributions, and confidence intervals.

0101	Peter Moon MW 2:00pm - 3:15pm	Seats (Total: 25) TWS 0223

MATH341 **Multivariable Calculus, Linear Algebra, Differential Equations II (Honors)**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH340. Restriction: Open to second semester Freshmen only. Credit only granted for: MATH240, MATH246, MATH341 or MATH461.

A continuation of MATH340.

0101	Roohollah Ebrahimian MWF 11:00am - 12:15pm	Seats (Total: 20) MTH 0405
0201	Yijing Wu MWF 12:00pm - 1:15pm	Seats (Total: 20) MTH 0103

MATH386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Must have learning proposal approved by the CMNS Mathematics Department.

Contact department for information to register for this course.

MATH401 **Applications of Linear Algebra**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH461, MATH240, MATH341).

Various applications of linear algebra: theory of finite games, linear programming, matrix methods as applied to finite Markov chains, random walk, incidence matrices, graphs and directed graphs, networks and transportation problems.

0101	Allan Yashinski MWF 2:00pm - 2:50pm	Seats (Total: 35) PHY 1219
0201	Wiseley Wong MWF 10:00am - 10:50am	Seats (Total: 35) PHY 2122
0301	Todd Rowland MWF 3:00pm - 3:50pm	Seats (Total: 35) PHY 0405
0401	Rodrigo Trevino TuTh 11:00am - 12:15pm	Seats (Total: 34) PHY 2122
0501	Michael Jakobson TuTh 12:30pm - 1:45pm	Seats (Total: 34) PHY 2213
0601	Lutian Zhao TuTh 2:00pm - 3:15pm	Seats (Total: 35) MTH 0201

MATH402 **Algebraic Structures**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461). Restriction: Must not be in any of the following programs (Mathematics (Master's); Mathematics (Doctoral)). Credit only granted for: MATH402 or MATH403.

For students having only limited experience with rigorous mathematical proofs. Parallels MATH403. Students planning graduate work in mathematics should take MATH403. Groups, rings, integral domains and fields, detailed study of several groups; properties of integers and polynomials. Emphasis is on the origin of the mathematical ideas studied and the logical structure of the subject.

0101	Todd Rowland MWF 11:00am - 11:50am	Seats (Total: 25) PHY 2208

MATH403 **Introduction to Abstract Algebra**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH340); and 1 course with a minimum grade of C- from (MATH341, MATH241); and minimum grade of C- in MATH310. Or students who have taken courses with comparable content may contact the department. Credit only granted for: MATH402 or MATH403.

Integers; groups, rings, integral domains, fields.

0101	Niranjan Ramachandran MWF 10:00am - 10:50am	Seats (Total: 31) MTH 0306
0201	Amin Gholampour MWF 11:00am - 11:50am	Seats (Total: 31) MTH 0306

MATH404 **Field Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH403.

Algebraic and transcendental elements, Galois theory, constructions with straight-edge and compass, solutions of equations of low degrees, insolubility of the quintic equation, Sylow theorems, fundamental theorem of finite Abelian groups.

0101	Patrick Brosnan MWF 10:00am - 10:50am	Seats (Total: 25) MTH 0106

MATH405 **Linear Algebra**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and minimum grade of C- in MATH310.

An abstract treatment of finite dimensional vector spaces. Linear transformations and their invariants.

0101	Justin Wyss-Gallifent MWF 2:00pm - 2:50pm	Seats (Total: 32) HBK 0103

0201	Adam Kanigowski TuTh 9:30am - 10:45am	Seats (Total: 28) PHY 2213
0301	Michael Laskowski MWF 1:00pm - 1:50pm	Seats (Total: 28) MTH 0403

MATH406 **Introduction to Number Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH241, MATH246, MATH340, MATH341, MATH461); or permission of CMNS-Mathematics department.

Integers, divisibility, prime numbers, unique factorization, congruences, quadratic reciprocity, Diophantine equations and arithmetic functions.

0101	Nathan Manning MWF 10:00am - 10:50am	Seats (Total: 28) MTH 0405
0201	Thomas Haines MWF 1:00pm - 1:50pm	Seats (Total: 28) MTH 0201
0301	Changguang Dong TuTh 9:30am - 10:45am	Seats (Total: 28) MTH B0421
0401	Harry Tamvakis TuTh 11:00am - 12:15pm	Seats (Total: 28) MTH B0421
0501	Antoine Mellet TuTh 12:30pm - 1:45pm	Seats (Total: 29) MTH 0106

MATH410 **Advanced Calculus I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and 1 course with a minimum grade of C- from (MATH340, MATH241); and minimum grade of C- in MATH310.

Subjects covered: sequences and series of numbers, continuity and differentiability of real-valued functions of one variable, the Riemann integral, sequences of functions and power series.

0101	Denny Gulick MWF 10:00am - 10:50am	Seats (Total: 34) MTH B0421
0201	Stefan Doboszczak MWF 12:00pm - 12:50pm	Seats (Total: 34) MTH 0304
0301	Manoussos Grillakis MWF 1:00pm - 1:50pm	Seats (Total: 32) MTH 0304
0501	Leonid Koralov TuTh 2:00pm - 3:15pm	Seats (Total: 30) MTH 0409

MATH411 **Advanced Calculus II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH410; and permission of CMNS-Mathematics department.

Continuation of MATH410. Topics include: The topology of sets in Rn, the derivative matrix, the general chain rule, inverse and implicit function theorems with applications, smooth curves and surfaces in R3, Lagrange multipliers. Additional topics may include: Metric spaces, the contraction principle, the existence and uniqueness theorem for nonlinear first order differential equations, the Riemann integral of Rn, introduction to integration on curves and surfaces, Green's theorem.

0201	Huy Nguyen TuTh 12:30pm - 1:45pm	Seats (Total: 32) PHY 0405
0301	Ricardo Nochetto TuTh 2:00pm - 3:15pm	Seats (Total: 28) PHY 2124

MATH416 **Applied Harmonic Analysis: An Introduction to Signal Processing**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH141; and 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and familiarity with MATLAB is required.

Introduces students to the mathematical concepts arising in signal analysis from the applied harmonic analysis point of view. Topics include applied linear algebra, Fourier series, discrete Fourier transform, Fourier transform, Shannon Sampling Theorem, wavelet bases, multiresolution analysis, and discrete wavelet transform.

0101	Stefan Doboszczak	Seats (Total: 32)
	MWF 10:00am - 10:50am	CHE 2136

MATH420 **Mathematical Modeling**

Credits: 3 Grading Method: Regular, Pass-Fail CORE: CS

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (MATH246, MATH341); and minimum grade of C- in STAT400. Cross-listed with: AMSC420. Credit only granted for: AMSC420 or MATH420.

The course will develop skills in data-driven mathematical modeling through individual and group projects. Emphasis will be placed on both analytical and computational methods, and on effective oral and written presentation of results.

0101	Charles Levermore	Seats (Total: 30)
	MWF 11:00am - 11:50am	MTH 0106

MATH424 **Introduction to the Mathematics of Finance**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH141; and 1 course with a minimum grade of C- from (STAT400, STAT410); and permission of CMNS-Mathematics department. Recommended: MATH246, MATH240, MATH241, MATH340, or MATH341. Credit only granted for: BMGT444, MATH424.

Introduction to the mathematical models used in finance and economics with emphasis on pricing derivative instruments. Designed for students in mathematics, computer science, engineering, finance and physics. Financial markets and instruments; elements from basic probability theory; interest rates and present value analysis; normal distribution of stock returns; option pricing; arbitrage pricing theory; the multiperiod binomial model; the Black-Scholes option pricing formula; proof of the Black-Scholes option pricing formula and applications; trading and hedging of options; Delta hedging; utility functions and portfolio theory; elementary stochastic calculus; Ito's Lemma; the Black-Scholes equation and its conversion to the heat equation.

0101	Steven Chadwick	Seats (Total: 32)
	MWF 1:00pm - 1:50pm	MTH 0306

MATH430 **Euclidean and Non-Euclidean Geometries**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461).

Hilbert's axioms for Euclidean geometry. Neutral geometry: the consistency of the hyperbolic parallel postulate and the inconsistency of the elliptic parallel postulate with neutral geometry. Models of hyperbolic geometry. Existence and properties of isometries.

0101	Terence Long	Seats (Total: 31)
	MWF 2:00pm - 2:50pm	PHY 2106

MATH437 **Differential Forms**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461). Recommended: MATH405, MATH403, MATH436, MATH410, or MATH432.

Introduction to differential forms and their applications, and unites the fundamental theorems of multivariable calculus in a general Stokes Theorem that is valid in great generality. It develops this theory and technique to perform calculations in analysis and geometry. Topics include an introduction to topological spaces, the Gauss-Bonnet Theorem, Gauss's formula for the linking number, and the Cauchy Integral Theorem. Applications include Maxwell's equations of electromagnetism, connections and gauge theory, and symplectic geometry and Hamiltonian dynamics.

0101	Richard Wentworth	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	MTH 0106

MATH446 **Axiomatic Set Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH403, MATH410).

Development of a system of axiomatic set theory, choice principles, induction principles, ordinal arithmetic including discussion of cancellation laws, divisibility, canonical expansions, cardinal arithmetic including connections with the axiom of choice, Hartog's theorem, Konig's theorem, properties of regular, singular and inaccessible cardinals.

0101	Michael Laskowski	Seats (Total: 25)
	MWF 10:00am - 10:50am	MTH 0304

MATH452 **Introduction to Dynamics and Chaos**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH341; or MATH246 and one of (MATH240 or MATH461). Cross-listed with: AMSC452. Credit only granted for: AMSC452 or MATH452.

An introduction to mathematical dynamics and chaos. Orbits, bifurcations, Cantor sets and horseshoes, symbolic dynamics, fractal dimension, notions of stability, flows and chaos. Includes motivation and historical perspectives, as well as examples of fundamental maps studied in dynamics and applications of dynamics.

0101	Agnieszka Zelerowicz TuTh 12:30pm - 1:45pm	Seats (Total: 20) MTH 0304

MATH456 **Cryptography**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: (CMSC106, CMSC131, or ENEE150; or equivalent programming experience); and (2 courses from (CMSC330, CMSC351, ENEE324, or ENEE380); or any one of these courses and a 400-level MATH course, or two 400-level MATH courses); and Permission of CMNS-Mathematics department or permission of instructor. Cross-listed with: CMSC456, ENEE456. Credit only granted for: MATH456, CMSC456 or ENEE456.

The theory, application, and implementation of mathematical techniques used to secure modern communications. Topics include symmetric and public-key encryption, message integrity, hash functions, block-cipher design and analysis, number theory, and digital signatures.

0101	Justin Wyss-Gallifent MWF 11:00am - 11:50am	Seats (Total: 64) CSI 3117
0201	Jonathan Katz TuTh 9:30am - 10:45am	Seats (Total: 80) CSI 3117
0301	Dana Dachman-Soled MW 2:00pm - 3:15pm	Seats (Total: 50) KEB 1110

MATH461 **Linear Algebra for Scientists and Engineers**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH141; and must have completed a MATH or STAT course with a prerequisite of MATH141. Credit only granted for: MATH240, MATH341, or MATH461. Additional information: This course may not be used towards the upper level math requirements for MATH/STAT majors.

Basic concepts of linear algebra. This course is similar to MATH240, but with more extensive coverage of the topics needed in applied linear algebra: change of basis, complex eigenvalues, diagonalization, the Jordan canonical form.

All Sections will use MATLAB.

0111	Allan Yashinski MWF 1:00pm - 1:50pm Tu 9:00am - 9:50am	Seats (Total: 25) ARM 0135 MTH B0427	Discussion
0112	Allan Yashinski MWF 1:00pm - 1:50pm Tu 9:00am - 9:50am	Seats (Total: 25) ARM 0135 MTH 0304	Discussion
0121	Allan Yashinski MWF 1:00pm - 1:50pm Tu 10:00am - 10:50am	Seats (Total: 25) ARM 0135 MTH B0427	Discussion
0122	Allan Yashinski MWF 1:00pm - 1:50pm Tu 10:00am - 10:50am	Seats (Total: 25) ARM 0135 MTH 0304	Discussion
0131	Allan Yashinski MWF 1:00pm - 1:50pm Tu 11:00am - 11:50am	Seats (Total: 25) ARM 0135 MTH B0427	Discussion
0132	Allan Yashinski MWF 1:00pm - 1:50pm Tu 11:00am - 11:50am	Seats (Total: 25) ARM 0135 MTH 0304	Discussion
0211	James Hanson TuTh 12:30pm - 1:45pm M 1:00pm - 1:50pm	Seats (Total: 25) ARM 0131 MTH 0101	Discussion
0212	James Hanson TuTh 12:30pm - 1:45pm M 1:00pm - 1:50pm	Seats (Total: 25) ARM 0131 ATL 1109	Discussion

0221	James Hanson TuTh 12:30pm - 1:45pm M 2:00pm - 2:50pm	Seats (Total: 25) ARM 0131 MTH 0101	 Discussion
0222	James Hanson TuTh 12:30pm - 1:45pm M 2:00pm - 2:50pm	Seats (Total: 25) ARM 0131 ATL 1109	 Discussion
0231	James Hanson TuTh 12:30pm - 1:45pm M 3:00pm - 3:50pm	Seats (Total: 25) ARM 0131 MTH 0101	 Discussion
0232	James Hanson TuTh 12:30pm - 1:45pm M 3:00pm - 3:50pm	Seats (Total: 25) ARM 0131 ATL 1109	 Discussion

MATH462 **Partial Differential Equations**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (MATH246, MATH341).

Linear spaces and operators, orthogonality, Sturm-Liouville problems and eigenfunction expansions for ordinary differential equations. Introduction to partial differential equations, including the heat equation, wave equation and Laplace's equation. Boundary value problems, initial value problems and initial-boundary value problems.

0201	Konstantina Trivisa TuTh 2:00pm - 3:15pm	Seats (Total: 30) MTH 0306

MATH463 **Complex Variables**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH241, MATH340).

The algebra of complex numbers, analytic functions, mapping properties of the elementary functions. Cauchy integral formula. Theory of residues and application to evaluation of integrals. Conformal mapping.

0101	David Hamilton MWF 3:00pm - 3:50pm	Seats (Total: 25) MTH 0103
0201	Xuemiao Chen TuTh 9:30am - 10:45am	Seats (Total: 25) PHY 2122

MATH464 **Transform Methods**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH246, MATH341).

Fourier transform, Fourier series, discrete fast Fourier transform (DFT and FFT). Laplace transform. Poisson summations, and sampling. Optional Topics: Distributions and operational calculus, PDEs, Wavelet transform, Radon transform and applications such as Imaging, Speech Processing, PDEs of Mathematical Physics, Communications, Inverse Problems.

0101	Tobias von Petersdorff MWF 12:00pm - 12:50pm	Seats (Total: 25) MTH 0401

MATH470 **Mathematics for Secondary Education**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH141 and MATH140; and must have completed one 400-level MATH course (not to include MATH461, 478, and 480's).

An advanced perspective on some of the core mathematics underlying high school mathematics courses. Topics include number systems, functions of one variable, equations, inequalities, trigonometric functions, curve fitting, and polynomials. The course includes an analysis of alternate approaches to mathematical ideas and problems, and makes connections between ideas that may have been studied separately in different high school and college courses.

0101	Dana Grosser-Clarkson TuTh 2:00pm - 3:15pm	Seats (Total: 25) PHY 1120

MATH475 **Combinatorics and Graph Theory**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340); and permission of CMNS-Mathematics department. Cross-listed with CMSC475. Credit only granted for: MATH475 or CMSC475.

General enumeration methods, difference equations, generating functions. Elements of graph theory, matrix representations of graphs, applications of graph theory to transport networks, matching theory and graphical algorithms.

0101	Wiseley Wong	Seats (Total: 35)
	MWF 11:00am - 11:50am	PHY 2122

MATH489 **Research Interactions in Mathematics; Research Interactions in Mathematics**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Students participate in a vertically integrated (undergraduate, graduate and/or postdoctoral, faculty) mathematics research group. Format varies. Students and supervising faculty will agree to a contract which must be approved by the department. Up to three credits of MATH489 may be applied to the mathematics degree requirements. See the department's MATH489 online syllabus for further information.

Contact department for information to register for this course.

MATH498A **Selected Topics in Mathematics**

(Perm req)

Credits: 1-9 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduate students will be offered occasionally under the general guidance of the departmental committee on undergraduate studies.

Contact department for information to register for this course.

MATH601 **Abstract Algebra II**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH600.

Field theory, Galois theory, multilinear algebra. Further topics from: Dedekind domains, Noetherian domains, rings with minimum condition, homological algebra.

Offered Spring only.

0101	Harry Tamvakis	Seats (Total: 18)
	TuTh 2:00pm - 3:15pm	MTH 0407

MATH607 **Algebraic Geometry II**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MATH606.

Topics in contemporary algebraic geometry chosen from among: theory of algebraic curves and surfaces, elliptic curves, Abelian varieties, theory of schemes, theory of zeta functions, formal cohomology, algebraic groups, reduction theory.

0101	Yordanka Kovacheva	Seats (Total: 20)
	MWF 12:00pm - 12:50pm	MTH 0101

MATH631 **Real Analysis II**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH630.

Abstract measure and integration theory, metric spaces, Baire category theorem and uniform boundedness principle, Radon-Nikodym theorem, Riesz Representation theorem, Lebesgue decomposition, Banach and Hilbert Spaces, Banach-Steinhaus theorem, topological spaces, Arzela-Ascoli and Stone-Weierstrass theorems, compact sets and Tychonoff's theorem.

Offered Spring only.

0101	Wojciech Czaja	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	MTH 0102

MATH660 **Complex Analysis I**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH410; or students who have taken courses with comparable content may contact the department.

Linear transformations, analytic functions, conformal mappings, Cauchy's theorem and applications, power series, partial fractions and factorization, elementary Riemann surfaces, Riemann's mapping theorem.

0101	Michael Jakobson	Seats (Total: 25)
	TuTh 9:30am - 10:45am	MTH 0307

MATH674 **Partial Differential Equations II**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH673 or AMSC673; or permission of instructor. Cross-listed with: AMSC674. Credit only granted for: AMSC674 or MATH674.

Boundary value problems for elliptic partial differential equations via operator-theoretic methods. Hilbert spaces of functions. Duality, weak convergence. Sobolev spaces. Spectral theory of compact operators. Eigenfunction expansions.

Offered Spring only.

0101	Matei Machedon	Seats (Total: 25)
	MWF 10:00am - 10:50am	PHY 2124

MATH689 **Research Interactions in Mathematics**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

The students participate in a vertically integrated (undergraduate, graduate and/or postdoctoral, faculty) research group. Format varies, but includes regular meetings, readings and presentations of material. See graduate program's online syllabus or contact the graduate program director for more information.

Contact department for information to register for this course.

MATH713 **Mathematical Logic II**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH712.

Incompleteness and undecidability results of Godel, Church, Tarski and others. Recursive function. Basic proof theory and axiomatic set theory.

0101	Christian Rosendal	Seats (Total: 18)
	TuTh 11:00am - 12:15pm	MTH B0431

MATH729C **Advanced Topics in Communication; Classical and Quantum Codes**

Credits: 3 Grading Method: Regular, Audit

Covers advanced topics in mathematics and communication.

Prerequisites: MATH405 or MATH461, and ENEE324; or students who have taken courses with comparable content may contact the department. Cross-listing with ENEE729C and CMSC858Q and PHYS729C. Credit only granted forENEE729C, CMSC858Q, MATH729C, or PHYS899C. The course will cover topics in classical and quantum coding theory from the unified perspective of protecting information in classical communication and supporting fault-tolerant computations in quantum computers. Topics in classical codes include: Reed-Solomon codes, codes on algebraic curves, Reed-Muller codes, polar codes, rank metric codes. Topics in quantum codes include: stabilizer codes, CSS codes, GKP codes, polynomial codes, toric code. See www.ece.umd.edu/~abarg/CQC for further details.

0101	Alexander Barg, Victor Albert	Seats (Total: 36)
	MW 11:00am - 12:15pm	PHY 2124

MATH734 **Algebraic Topology**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH403; or students who have taken courses with comparable content may contact the department. Recommended: MATH730.

Singular homology and cohomology, cup products, Poincare duality, Eilenberg-Steenrod axioms, Whitehead and Hurewicz theorems, universal coefficient theorem, cellular homology.

0101	Jonathan Rosenberg	Seats (Total: 20)
	MWF 9:00am - 9:50am	PHY 4220

MATH740 **Fundamental Concepts of Differential Geometry**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH405, MATH411, and MATH730; or students who have taken courses with comparable content may contact the department.

Manifolds, tangent vectors and differential forms, Riemannian metrics, connections, curvature, structure equations, geodesics, calculus of variations.

0101	Tamas Darvas	Seats (Total: 20)
	MWF 11:00am - 11:50am	ITV 1100

MATH799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

MATH808A **Selected Topics in Algebra**

Credits: 1-3 Grading Method: Regular

Advanced topics of current interest.

Contact department for information to register for this course.

MATH808K **Selected Topics in Algebra; Brauer Groups**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

0101	Eoin Mackall	Seats (Total: 20)
	MWF 1:00pm - 1:50pm	MTH B0425

MATH808V **Selected Topics in Algebra; Shimura Varieties**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

0101	Yihang Zhu	Seats (Total: 20)
	MWF 11:00am - 11:50am	MTH 0201

MATH818A **Selected Topics in Logic**

Credits: 1-3 Grading Method: Regular, Audit

Advanced topics of current interest.

Contact department for information to register for this course.

MATH848A **Selected Topics in Geometry and Topology**

Credits: 1-3 Grading Method: Regular, Audit

Advanced topics of current interest.

Contact department for information to register for this course.

MATH848L **Selected Topics in Geometry and Topology; Sympletic Geometry**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

0101	Daniel Cristofaro-Gardiner	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	MTH 0303

MATH858A **Selected Topics in Analysis**

Credits: 1-3 Grading Method: Regular, Audit

Advanced topics of current interest.

Contact department for information to register for this course.

MATH858M **Selected Topics in Analysis; asymptotic Methods**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

0101	Dionisios Margetis	Seats (Total: 18)
	TuTh 9:30am - 10:45am	PHY 4221

MATH858R **Selected Topics in Analysis; Ramsey Theory and its Applications**

Credits: 3 Grading Method: Regular, Audit

Advanced topics of current interest.

Cross-listed with CMSC752. Credit only granted for CMSC752, CMSC858R, or MATH858R.

0101	William Gasarch	Seats (Total: 43)
	TuTh 3:30pm - 4:45pm	CSI 2107

MATH868A **SelectedTopics in Complex Analysis**

Credits: 1-3 Grading Method: Regular, Audit

Advanced topics of current interest.

Contact department for information to register for this course.

MATH868F **SelectedTopics in Complex Analysis; Introduction to Teichueller Dynamics**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

0101	Giovanni Forni TuTh 12:30pm - 1:45pm	Seats (Total: 18) MTH B0431

MATH898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

MATH899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

MEES Marine-Estuarine-Environmental Sciences Spring 2022

MEES484 **Marine Microbial Ecology**

Credits: 3 Grading Method: Regular, Audit

Jointly offered with: MEES684.

The primary goal of this course is to become familiar with the diversity, ecology, and biogeochemical roles of Bacteria, Archaea, microbial Eukaryotes, viruses, and fungi in the marine environment. The course will also cover the latest discoveries in molecular microbial ecology. Each main topic will begin with a lecture and will be followed by a paper discussion. For the paper discussions, each student will present selected papers specified in the syllabus (or by consensus with the course instructors). Students will also participate in class discussions.

0101	Feng Chen, Jacob Cram TuTh 11:00am - 12:20pm	Seats (Total: 20) Location: TBA

MEES498T **Topics in Marine-Estuarine-Environmental Sciences; Marine and Environmental Biotechnology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Lecture and/or laboratory series organized to study a selected area of marine-estuarine-environmental sciences not otherwise considered in formal courses.

Cross-listed with MEES698T. Credit only granted for MEES498T or MEES698T. Taught at Institute of Marine and Environmental Technology (IMET) and over the Interactive Video Network (IVN).

0101	Jum Sook Chung MW 9:30am - 10:50am Contact instructor or department for details.	Seats (Total: 20) Location: TBA

MEES601 **Applied Environmental Science**

Credits: 2 Grading Method: Regular, Audit

Credit only granted for: MEES601 or MEES609A. Formerly: MEES609A.

Designed to promote an appreciation of interdisciplinarity in natural and social sciences and to provide exposure to how science can influence and inform ongoing policy and management debates. The course addresses the role of science and scientists in providing information to policy makers and managers on complex environmental challenges.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Thomas Miller, Carys Mitchelmore M 2:00pm - 3:50pm	Seats (Total: 35) Location: TBA

MEES608R **Seminar in Marine-Estuarine-Environmental Sciences; Applied Bayesian Statistics**

Credits: 1 Grading Method: Regular, Audit

0101	Dong Liang **Meets January 24, 2022 - March 18, 2022** TuTh 12:30pm - 1:20pm	Seats (Total: 20) Location: TBA

MEES609B **Professional Development in Marine Estuarine Environmental Science; Job Skills 101**

Credits: 1 Grading Method: Regular, Audit

Training designed for existing and future careers.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Hali Kilbourne, David Nelson M 1:00pm - 1:50pm	Seats (Total: 20) Location: TBA

MEES618C **Seminars in Marine Estuarine Environmental Sciences; Next Generation Sequence and Analysis**

Credits: 2 Grading Method: Regular, Audit

Topics of interest in Marine Estuarine Environmental Sciences

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Tsvetan Bachvaroff Th 3:00pm - 4:50pm	Seats (Total: 20) Location: TBA

MEES631 **Fish Ecology**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Restriction: Permission of instructor.

Study of the interrelationships between individuals, their communities and environment. Explores the environmental biology of fish, feeding ecology, energetics and growth, population biology, reproduction and life history, and population and community interactions.

0101	Thomas Miller, David Secor MW 11:00am - 12:20pm	Seats (Total: 20) Location: TBA

MEES684 **Marine Microbial Ecology**

Credits: 3 Grading Method: Regular, Audit

The primary goal of this course is to become familiar with the diversity, ecology, and biogeochemical roles of Bacteria, Archaea, microbial Eukaryotes, viruses, and fungi in the marine environment. The course will also cover the latest discoveries in molecular microbial ecology. Each main topic will begin with a lecture and will be followed by a paper discussion. For the paper discussions, each student will present selected papers specified in the syllabus (or by consensus with the course instructors). Students will also participate in class discussions.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Feng Chen, Jacob Cram TuTh 11:00am - 12:20pm	Seats (Total: 20) Location: TBA

MEES698K **Special Topics in Marine-Estuarine-Environmental Sciences; Introduction to GIS**

Credits: 2

Grading Method: Regular, Audit

Credit according to time schedule and course organization. Lecture and/or laboratory series organized to study selected areas of environmental science not otherwise considered by existing courses. May be repeated for credit since topic coverage will change.

0101	Matthew Fitzpatrick	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

MEES698T **Special Topics in Marine-Estuarine-Environmental Sciences; Marine and Environmental Biotechnology**

Credits: 3

Grading Method: Regular, Audit

Credit according to time schedule and course organization. Lecture and/or laboratory series organized to study selected areas of environmental science not otherwise considered by existing courses. May be repeated for credit since topic coverage will change.

Cross-listed with MEES498T. Credit only granted for MEES498T or MEES698T. Taught at Institute of Marine and Environmental Technology (IMET) and over the Interactive Video Network (IVN).

0101	Jum Sook Chung	Seats (Total: 20)
	MW 9:30am - 10:50am	Location: TBA
	Contact instructor or department for details.	

MEES698U **Special Topics in Marine-Estuarine-Environmental Sciences; Fire and Ecosystem**

Credits: 3

Grading Method: Regular, Audit

Credit according to time schedule and course organization. Lecture and/or laboratory series organized to study selected areas of environmental science not otherwise considered by existing courses. May be repeated for credit since topic coverage will change.

0101	Mark Cochrane	Seats (Total: 20)
	F 9:30am - 12:20pm	Location: TBA

MEES699 **Special Problems in Marine-Estuarine-Environmental Sciences**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit

Research on specialized topics under the direction of individual faculty members.

Contact department for information to register for this course.

MEES708M **Advanced Topics in Marine-Estuarine-Environmental Science; Environmental Statistic II**

Credits: 3 Grading Method: Regular, Audit

Lectures, experimental courses and other specialized graduate training in various relevant disciplines.

Taught over the Interactive Video Network (IVN). This course will extend statistical training of the students to advanced topics of time series analysis and spatial statistics. After taking this course, students will be familiar with a variety of state-of-the-art approaches for qualitative analysis of time- and space-dependent data. Students will become competent users of these methods by practicing them in class and in their homework assignments using the statistical programming language R. This course fills the Professional Development requirement.

0101	Vyacheslav Lyubchich, Dong Liang	Seats (Total: 30)
	TuTh 9:30am - 10:50am	Location: TBA

MEES708T **Advanced Topics in Marine-Estuarine-Environmental Science; Science Visualization**

Credits: 2 Grading Method: Regular, Audit

Lectures, experimental courses and other specialized graduate training in various relevant disciplines.

0101	William Dennison	Seats (Total: 20)
	F 1:00pm - 2:50pm	Location: TBA

MEES718W **Study Groups on Issues in Marine Estuarine Enviornmental Sciences; Advancing Diversity, Equity, and Inclusion in Environmental Science**

Credits: 2 Grading Method: Regular, Audit

Active discussions on current environmental topics and issues. Efforts may result in manuscripts, technical report or innovative communication products.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	James Pierson	Seats (Total: 20)
	W 1:00pm - 2:50pm	Location: TBA

MEES799 **Masters Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

MEES898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

MEES899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

MIEH Maryland Institute for Applied Environmental Health Spring 2022

MIEH300 **A Public Health Perspective: Introduction to Environmental Health**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in CHEM131 and CHEM132; and must have completed or be concurrently enrolled in SPHL100 or PHSC300. Restriction: Must have earned a minimum of 60 credits; and must be in Public Health Science program; or permission of SPHL-School of Public Health. Credit only granted for: SPHL498N or MIEH300. Formerly: SPHL498N.

Environmental health is that branch of public health that deals with the human health effects of exposure to chemical, physical, and biological agents in the community, workplace, and home. Activities within Environmental Health Sciences are associated with recognizing, assessing, understanding, and mitigating the impacts of chemical, physical, and biological agents as well as understanding how human behavior and action impacts the environment. This course focuses on the central concepts, principles, issues, and applications of the essential scientific components and strategies of control of major environmental health problems.

0101	Kendall Bustad	Seats (Total: 20)	
	MW 9:00am - 9:50am W 10:00am - 11:50am	SPH 1312 SPH 0225	Lab
	Restricted to College Park Students in the Public Health Science major (code 12140).		
0102	Kendall Bustad	Seats (Total: 20)	
	MW 9:00am - 9:50am W 12:00pm - 1:50pm	SPH 1312 SPH 0225	Lab
	Restricted to College Park students in the Public Health Science major (code: 12140).		

0103	Kendall Bustad	Seats (Total: 20)	
	MW 9:00am - 9:50am W 2:00pm - 3:50pm	SPH 1312 SPH 0225	Lab
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0104	Kendall Bustad	Seats (Total: 20)	
	MW 9:00am - 9:50am W 2:00pm - 3:50pm	SPH 1312 SPH 0116A	Lab
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0105	Kendall Bustad	Seats (Total: 20)	
	MW 9:00am - 9:50am F 8:00am - 9:50am	SPH 1312 SPH 0225	Lab
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0106	Kendall Bustad	Seats (Total: 20)	
	MW 9:00am - 9:50am F 10:00am - 11:50am	SPH 1312 SPH 0225	Lab
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0107	Kendall Bustad	Seats (Total: 20)	
	MW 9:00am - 9:50am F 12:00pm - 1:50pm	SPH 1312 SPH 0225	Lab
	Restricted to College Park Students in the Public Health Science major (code 12140).		
0108	Kendall Bustad	Seats (Total: 20)	
	MW 9:00am - 9:50am F 2:00pm - 3:50pm	SPH 1312 SPH 0225	Lab
	Restricted to College Park Students in the Public Health Science major (code 12140).		

MIEH309 **Environmental Health Research**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

This research-based course will provide undergraduates with the opportunity to work closely with one of the faculty researchers in the Maryland Institute for Applied Environmental Health (MIAEH) within the School of Public Health. Our research covers multiple fields within the environmental health sciences (e.g. environmental epidemiology, exposure science, risk assessment, environmental microbiology, environmental microbial genomics, food toxicology, airborne infection transmission, environmental justice, and children's environmental health) that involve either laboratory-based research or non-laboratory based studies. Students will not only gain invaluable research and interpersonal skills but also contribute to MIAEH's ongoing environmental health research programs.

0201	Paul Turner Contact instructor or department for details.	Seats (Total: 10)
0202	Amir Sapkota Contact instructor or department for details.	Seats (Total: 10)
0203	Amy Sapkota Contact instructor or department for details.	Seats (Total: 10)
0204	Jennifer German, Donald Milton Contact instructor or department for details.	Seats (Total: 40)
0205	Robin Puett Contact instructor or department for details.	Seats (Total: 10)
0206	Sacoby Wilson Contact instructor or department for details.	Seats (Total: 20)
0207	Rachel Goldstein Contact instructor or department for details.	Seats (Total: 10)
0208	Devon Payne-Sturges Contact instructor or department for details.	Seats (Total: 10)
0209	Muhiuddin Haider Contact instructor or department for details.	Seats (Total: 10)
0210	Elisabeth Maring Contact instructor or department for details.	Seats (Total: 10)
0211	Rianna Murray Contact instructor or department for details.	Seats (Total: 5)

MIEH321 Environmental Determinants of Emerging Infectious Diseases

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in SPHL100.

Examines the influences of environmental factors, economic development, migration, and land use changes on emergence and reemergence of infectious diseases. Explores how population growth, development, and climate change impact natural reservoirs of infectious diseases and how they are transmitted through human populations. Includes historical accounts, newly emerging and reemerging diseases.

0101	Michael Bazaco Th 5:00pm - 7:30pm	Seats (Total: 35) ONLINE
ESG1	Sara Bazaco W 5:30pm - 8:00pm *Restricted to Shady Grove students in the Public Health Science major.*	Seats (Total: 35) ONLINE

MIEH325 **Introduction to Clinical Research Methods**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Introduction to Clinical Research Methods will provide students an opportunity to learn about both the development and implementation of a clinical research study and a variety of methods utilized for sample collection. Students will review topics including an overview of bioethics in research, especially as pertains to use of human subjects, the basics of study design, and data entry and the importance of good record keeping in an in-person, discussion-based class portion. Students will also be trained in and have the opportunity to practice basic clinical research methods including phlebotomy, taking nose and throat swabs, taking basic vitals, and other methods. By the end of the course, students will be certified to perform phlebotomy at the University of Maryland with the potential be become a certified Phlebotomy Technician.

0101	Jennifer German TuTh 2:30pm - 3:45pm Class time/details on ELMs	Seats (Total: 16) SPH 0225 ONLINE

MIEH400 **Introduction to Global Health**

Credits: 3

Grading Method: Regular, Pass-Fail

General Education: DVUP

Prerequisite: Minimum grade of C- in MIEH300; and 1 course with a minimum grade of C- from (SPHL100, PHSC300). Restriction: Must be in the Public Health Science program or must have permission of the program director; and must have completed 60 credits. Credit only granted for: MIEH400 or SPHL498A. Formerly: SPHL498A.

Exploration of theoretical frameworks and practical perspectives on issues shaping the global health panorama. Determinants examined through: biological and epidemiological; social, cultural and economic; environmental and geographic; multi-section, legal and institutional perspectives with synopsis of how these issues are addressed by international and community organizations in developing countries.

0101	Amir Sapkota MW 3:00pm - 3:50pm Th 8:00am - 8:50am	Seats (Total: 20) ESJ 0202 SPH 0116B	 Discussion
	Restricted to College Park students in the Public Health Science major.		
0102	Amir Sapkota MW 3:00pm - 3:50pm Th 9:30am - 10:20am	Seats (Total: 20) ESJ 0202 SPH 0116B	 Discussion
	Restricted to College Park students in the Public Health Science major.		
0103	Amir Sapkota MW 3:00pm - 3:50pm Th 11:00am - 11:50am	Seats (Total: 20) ESJ 0202 SPH 0116B	 Discussion
	Restricted to College Park students in the Public Health Science major.		
0104	Amir Sapkota MW 3:00pm - 3:50pm Th 12:30pm - 1:20pm	Seats (Total: 20) ESJ 0202 SPH 0116B	 Discussion
	Restricted to College Park students in the Public Health Science major.		
0105	Amir Sapkota MW 3:00pm - 3:50pm Th 2:00pm - 2:50pm	Seats (Total: 20) ESJ 0202 SPH 0116B	 Discussion
	Restricted to College Park students in the Public Health Science major.		
0106	Amir Sapkota MW 3:00pm - 3:50pm Th 3:30pm - 4:20pm	Seats (Total: 20) ESJ 0202 SPH 0116B	 Discussion
	Restricted to College Park students in the Public Health Science major.		
0107	Amir Sapkota MW 3:00pm - 3:50pm F 10:00am - 10:50am	Seats (Total: 20) ESJ 0202 ANS 0402	 Discussion
	Restricted to College Park students in the Public Health Science major.		

0108	Amir Sapkota MW 3:00pm - 3:50pm F 11:00am - 11:50am	Seats (Total: 20) ESJ 0202 ANS 0402	Discussion
	Restricted to College Park students in the Public Health Science major.		
ESG1	Negin Fouladi M 2:00pm - 4:30pm Class time/details on ELMs	Seats (Total: 35) BLD3 4216 ONLINE	Discussion
	Restricted to Shady Grove students in the Public Health Science major.		

MIEH480 **Introduction to Occupational Health**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in MIEH300 and EPIB301. Recommended: BSCI201.

Work, the way it is organized, and the workplace environment has an impact on public health and workers' and their families' physical and psychological health. The course introduces students to the field of occupational health and safety, and ensures that workers' health is considered in all public health practice and policy. Basic concepts in occupational safety and health are discussed, as well as methods to anticipate, recognize, evaluate, and control environmental factors or stresses arising in or from the workplace. In addition to instructor-led lectures, guest speakers will be invited to discuss case studies and/or discuss workplace hazards unique to specific populations.

0101	Kathleen McPhaul W 4:00pm - 6:30pm	Seats (Total: 35) ATL 1114
	Restricted to College Park students in the Public Health Science major.	

MIEH609 **Methods in Environmental Health**

(Perm req)

Credits: 1-3 Grading Method: Regular

This research-based rotation in environmental health sciences will provide graduate students with the opportunity to work closely with faculty researchers in the Maryland Institute for Applied Environmental Health (MIAEH) within the School of Public Health. Our research covers multiple fields within the environmental health sciences (e.g. environmental epidemiology, exposure science, risk assessment, environmental microbiology, environmental microbiology, environmental microbial genomics, food toxicology, airborne infection transmission, environmental justice, and children's environmental health) that involve either laboratory-based research or non-laboratory based studies. Students will not only gain invaluable research experience and interpersonal skills but also contribute to MIAEH's ongoing environmental health research programs.

0201	Paul Turner Contact instructor or department for details.	Seats (Total: 5)
0202	Amir Sapkota Contact instructor or department for details.	Seats (Total: 5)
0203	Amy Sapkota Contact instructor or department for details.	Seats (Total: 5)
0204	Donald Milton Contact instructor or department for details.	Seats (Total: 5)
0205	Robin Puett Contact instructor or department for details.	Seats (Total: 5)
0206	Sacoby Wilson Contact instructor or department for details.	Seats (Total: 5)
0207	Rachel Goldstein Contact instructor or department for details.	Seats (Total: 5)
0208	Devon Payne-Sturges Contact instructor or department for details.	Seats (Total: 5)

MIEH610 **Global Health Program Planning and Evaluation**

Credits: 3 Grading Method: Regular, Audit

Recommended: MIEH605. Credit only granted for: MIEH610, SPHL610 or SPHL698D. Formerly: SPHL698D and SPHL610.

Development of health program and evaluation plans to address critical health problems in international settings, especially transitional or in-conflict countries. Emphasis on linking a tactical program plan to overall health problems of a nation, to include the policy and economic issues involved in assessment, implementation and evaluation.

GH01	Anton Schneider W 5:00pm - 7:30pm	Seats (Total: 15) ONLINE

MIEH690 **UMD Global STEWARDS: Experiential Exploration of Innovations at the Nexus of Food, Energy, and Water Systems (INFEWS)**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of instructor; and must be in UMD Global STEWARDS Fellows.

Experiential introduction to broad food, energy, water (FEW) nexus topics, focusing on how integration across the biological, physical, social, behavioral, computer and engineering sciences will be critical in solving FEW systems challenges. FEW nexus issues from molecular to societal levels and from local to global scales will be covered. Course meetings will include active learning-based lectures, discussions, on-campus and off-campus field trips, hands-on activities, brainstorming about interdisciplinary FEW systems projects, and guest lectures.

0101	Amy Sapkota	Seats (Total: 15)
	W 9:00am - 10:30am Class time/details on ELMs	ESJ B0320 ONLINE

MIEH699 **UMD Global STEWARDS: Seminal Findings, and Research and Policy in Progress at the Food, Energy, Water Nexus**

(Perm req)

Credits: 1

Grading Method: Regular, Audit

Engaging discourse covering seminal findings, as well as research and policy in progress at the food, energy, water (FEW) nexus. Course meetings will include dissections of groundbreaking FEW nexus articles; presentations by faculty members and students, followed by interdisciplinary discussions; and presentations by visiting leaders working at the FEW nexus across career sectors.

0101	Amy Sapkota	Seats (Total: 15)
	Th 12:00pm - 12:50pm	ONLINE

MIEH720 **Principles of Toxicology**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: MIEH600; or permission of instructor. Recommended: Must have completed some coursework in chemistry and/or biology.

Overview of toxicology, including exposure pathways, toxicokinetics, dermal toxicants, carcinogens, and genetic, reproductive, immuno-, nuero-, target organs, complex mixtures, structure-activity analysis, and determinants of hypo- and hyper-susceptibility. Case studies of global national and regional interest.

0101	Paul Turner	Seats (Total: 25)
	Tu 1:00pm - 3:45pm	HBK 0105

MIEH771 **Exposure Assessment of Environmental Hazards**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: MIEH600; and must have completed a graduate level statistics course with a B- or higher. Or permission of instructor.

Approaches and methods for determining exposure to environmental contaminants. Biomonitoring and genetic methods to detect recent exposures. Optimizing exposure assessment.

0101	Paul Turner Th 1:00pm - 3:45pm	Seats (Total: 25) ATL 2316

MIEH773 **Foodborne, Waterborne and Airborne Infectious Diseases**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Corequisite: MIEH600; or permission of instructor.

In-depth study of foodborne, waterborne and airborne diseases caused by bacteria, viruses and parasites. Topics will include sources and detection of causative agents; their transmission to humans via food, water, air and other environmental media; and methods of disease prevention, including food safety approaches and drinking water treatment. Classes include lectures, discussions, field-trips and hands-on field sampling and laboratory activities.

0101	Rachel Goldstein Th 10:00am - 11:50am Class time/details on ELMs	Seats (Total: 15) EGR 2116 ONLINE

MIEH778 **Internship in Public Health**

Credits: 1-4

Grading Method: Regular, Audit, Sat-Fail

Internship and seminar providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the internship will depend upon the student's background and career goals.

0201	Paul Turner Contact instructor or department for details.	Seats (Total: 5)
0202	Amir Sapkota Contact instructor or department for details.	Seats (Total: 5)
0203	Amy Sapkota Contact instructor or department for details.	Seats (Total: 5)

0204	Donald Milton Contact instructor or department for details.	Seats (Total: 5)
0205	Robin Puett Contact instructor or department for details.	Seats (Total: 5)
0206	Sacoby Wilson Contact instructor or department for details.	Seats (Total: 5)
0207	Rachel Goldstein Contact instructor or department for details.	Seats (Total: 5)
0208	Devon Payne-Sturges Contact instructor or department for details.	Seats (Total: 5)

MIEH785 **Internship in Public Health**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of SPHL-Maryland Institute for Applied Environmental Health. Credit only granted for: MIEH785 or MIEH778.

Internship and seminar providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the internship will depend upon the student's background and career goals.

0101	Paul Turner Contact instructor or department for details.	Seats (Total: 5)

MIEH786 **Capstone Project in Public Health**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of SPHL-Maryland Institute for Applied Environmental Health.

Capstone experience provding opportunity to apply knowledge and skills to a specific public health problem or issue. Completion of project relevant to public health under the direction of an advisor.

0201	Paul Turner Contact instructor or department for details.	Seats (Total: 5)
0202	Amir Sapkota Contact instructor or department for details.	Seats (Total: 5)

0203	Amy Sapkota Contact instructor or department for details.	Seats (Total: 5)
0204	Donald Milton Contact instructor or department for details.	Seats (Total: 5)
0205	Robin Puett Contact instructor or department for details.	Seats (Total: 5)
0206	Sacoby Wilson Contact instructor or department for details.	Seats (Total: 5)
0207	Rachel Goldstein Contact instructor or department for details.	Seats (Total: 5)
0208	Devon Payne-Sturges Contact instructor or department for details.	Seats (Total: 5)

MIEH788 **Critical Readings in Environmental Health**

Credits: 1-3 Grading Method: Regular, Audit

In-depth examination and critical discussion of the current literature relevant to environmental health.

Contact department for information to register for this course.

MIEH789 **Independent Study**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Individual reading and/or research under a specific faculty member in the department.

Contact department for information to register for this course.

MIEH799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

MIEH898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

MIEH899 **Doctoral Dissertation Research**

(Perm req)

Credits: 1-8 Grading Method: Sat-Fail

Contact department for information to register for this course.

MITH Maryland Institute for Technology in the Humanities Spring 2022

MITH388 **Digital Humanities Research Assistantship**

Credits: 1-3 Grading Method: Regular, Pass-Fail

An applied introduction to the theory and practice of digital research. The internship includes regular meetings with MITH staff, including designers, developers, information professionals, project managers, and faculty, to gain knowledge of existing digital scholarship and resources within the arts and humanities. Students may contribute to existing MITH projects or propose a small, independent research project on which they will receive support from MITH staff.

Cross-listed with ENGL388T. Credit only granted for MITH388 or ENGL388T.

0101	Purdom Lindblad	Seats (Total: 10)
	Contact instructor or department for details.	

MITH498E **Special Topics in Applied Digital Humanities; Digital Storytelling with Archives**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

An introduction to special topics, and technical approaches, for theoretically grounded humanities and social sciences digital research. Class meetings will introduce students to a variety of technical approaches potentially applicable to the specific topical foci; the theoretical basis for selecting, evaluating, and modifying technical approaches; and best practices in project management.

Prerequisite: Instructor permission required. Cross-listing with CINE419E. Credit only granted for CINE419E or MITH498E. An examination and exercise of the reuse and repurposing of archival audiovisual content in new scholarly or creative work. Part of the course will be a survey and discussion of how different genres incorporate suchvisuals (experimental film vs. documentaries vs. narrative features vs. transmedia/storytelling vs. journalistic outlets), and the other part will be a lab wherein students will create a final media project - short documentary film, video essay, transmedia project, or news story - utilizing archival footage from select sources.

0101	Stephanie Sapienza	Seats (Total: 15)
	TuTh 3:30pm - 4:45pm	Location: TBA

MITH610 **Introduction to Digital Studies in the Arts and Humanities**

Credits: 3 Grading Method: Regular, Sat-Fail

An introduction to digital studies in the arts and humanities, broadly conceived as the critical, creative, and practical engagement with digital media, methods, tools, and experiences, as well as the theoretical and conceptual bases for understanding them.

Cross-listing with COMM738D. Credit only granted for MITH610 or COMM738D.

0101	Catherine Steele M 3:30pm - 6:30pm	Seats (Total: 15) SKN 2127

MITH729 **Colloquium in Digital Studies**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

Colloquium in support of the ARHU-MITH Graduate Certificate in Digital Studies. We will meet periodically (approximately 4-5 times a semester) to read and discuss current work in the field, interact with visiting speakers, share work in progress, learn new tools and methods, and hear research presentations from one another.

Cross-listed with ENGL798D. Credit granted for MITH729 or ENGL798D.Class meets in TWS 3136 on the following dates:2/2, 3/2, 4/6, and 5/4.

0101	Matthew Kirschenbaum **Meets February 7, 2022 - April 29, 2022** F 3:00pm - 5:00pm	Seats (Total: 20) Location: TBA

MLAW MPower Undergraduate Law Programs Spring 2022

MLAW101 **Justice and the Law Service-Learning Lab**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: MLAW100. Restriction: Students must be enrolled in the College Park Scholars Justice & Legal Thought (CPJT) program. Cross-listed with: CPJT105. Credit only granted for: MLAW101 or CCJT105.

The MLAW/Justice and the Law Service-Learning Lab is designed to build skills in using law to create change through community service. Students will engage in 40 hours of service during the semester, and will engage in critical reflection sessions in person or virtually. All service is intended to advance the cause of justice using law and hence put JLT principles to practice. Service will include but not be limited to immigrant assistance and refugee resettlement.

0101	Justine DeCamillis, Robert Koulish Class time/details on ELMs	Seats (Total: 10) ONLINE	

MLAW150 **Law in a Just Society**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, SCIS

Restriction: Must be in the College Park Scholars - Justice and Legal Thought program.

An exploration of the theoretical questions relating to such fundamental questions of jurisprudence as "what is law?" and "how can law be deployed as both an enemy and ally of justice?

0101	David Gray TuTh 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 25) ATL 2324 CHE 2145	Discussion
0102	David Gray TuTh 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 25) ATL 2324 CHE 2140	Discussion
0103	David Gray TuTh 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 25) ATL 2324 ATL 2352	Discussion

MLAW304 **Introduction to Law and Social Inquiry**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Restriction: Must be in the Law and Society (MLAW) minor.

An exploration of the relationship between law and society from an interdisciplinary perspective. Major themes cover the impact of law on society, society on law and social change.

An exploration of the relationship between law and society from an interdisciplinary perspective. Major themes cover the impact of law on society, society on law and social change.

0101	Robert Koulish Tu 3:00pm - 5:30pm	Seats (Total: 20) ITV 1111	

MLAW305 **Law and Legal Institutions in Social Context**

Credits: 3 | Grading Method: Regular, Pass-Fail

Prerequisite: MLAW304. Restriction: Must be a student in the Law and Society Minor.

An exploration of case law, statutes, and regulations separately and together in their social context.

An analysis of the legal institutions of law through a social lens focusing on judicial interpretation, case law, statutes and regulations.

0101	Brian Gilmore TuTh 11:00am - 12:15pm	Seats (Total: 60) CHM 2201
0201	Brian Gilmore TuTh 3:30pm - 4:45pm	Seats (Total: 25) TYD 2102

MLAW355 **Undergraduate Teaching Assistant Experience**

Credits: 3 Grading Method: Regular

Prerequisite: MLAW304. Restriction: Must be enrolled in the Law and Society minor; and permission of program. Repeatable to 6 credits. Formerly: MLAW355. Additional information: Must be enrolled in the Law and Society minor, By department permission only.

This course is designed to engage experienced Law and Society students as mentors and class leaders. Students will be involved in lesson planning, course design, field trips, and class discussion as they develop their leadership and public speaking skills.

0101	Brandee Pettus Class time/details on ELMs	Seats (Total: 1) ONLINE

MLAW358B **Selected Topics in Law and Society; Social Injustice in Flint, Newark, and Baltimore**

Credits: 3 Grading Method: Regular, Pass-Fail

An interdisciplinary exploration of topics in law and society. Major scholarly interpretations of specific substantive fields of law.

What environmental conditions look like at the local level raises justice concerns involving race, gender, age and economic situation. In this course, we'll consider how the law has or has not addressed environmental conditions in a variety of localities. For example, the Flint water crisis meant that the municipal water system failed to protect residents from lead in the water. As a result, among other things, thousands of young children experienced insults to their brains that may impact their education and opportunities over their lifetimes. We wil examine how special education law (Individuals with Disabilities Education Act) may or may not improve the lives of the children, their families and their community. Students will be expected to attend and participate in class, complete two writing assignments each week, and investigate an environmental issue affecting a local community.

0101	Karen Czapanskiy	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	JMZ 3122

MLAW358J **Selected Topics in Law and Society; Critical Issues in Healthcare**

Credits: 3 Grading Method: Regular

An interdisciplinary exploration of topics in law and society. Major scholarly interpretations of specific substantive fields of law.

0101	Diane Hoffmann	Seats (Total: 20)
	TuTh 9:30am - 10:45am	VMH 1107

MLAW358T **Selected Topics in Law and Society; Tackling Trafficking: The Legal System's Responses to Human Trafficking**

Credits: 3 Grading Method: Regular, Pass-Fail

An interdisciplinary exploration of topics in law and society. Major scholarly interpretations of specific substantive fields of law.

An examination of domestic and international legal responses to the perpetration of the various forms of human trafficking. Students will explore policy initiatives along with civil and criminal law techniques designed to punish traffickers and protect victims.

0101	Christine White	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	JMZ 1122

MLAW358U **Selected Topics in Law and Society; The Politics of Immigration Law**

Credits: 3 Grading Method: Regular, Pass-Fail

An interdisciplinary exploration of topics in law and society. Major scholarly interpretations of specific substantive fields of law.

0101	Robert Koulish	Seats (Total: 20)
	W 3:00pm - 5:30pm	PHY 1201

MLAW358W **Selected Topics in Law and Society; Courts, Law and Justice**

Credits: 3 Grading Method: Regular, Pass-Fail

An interdisciplinary exploration of topics in law and society. Major scholarly interpretations of specific substantive fields of law.

Restriction: Must be enrolled in the Law and Society minor program. Cross-listed with GVPT331. Credit only granted for GVPT331 or MLAW358W.

0101	Michael Spivey MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 25) ESJ 2208 JMZ 0208	 Discussion
0102	Michael Spivey MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) ESJ 2208 JMZ 0208	 Discussion
0103	Michael Spivey MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) ESJ 2208 LEF 0135	 Discussion
0104	Michael Spivey MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) ESJ 2208 KEY 0126	 Discussion
0105	Michael Spivey MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) ESJ 2208 KEY 0116	 Discussion
0106	Michael Spivey MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 25) ESJ 2208 KEY 0125	 Discussion

MLAW358Y **Selected Topics in Law and Society; Civil Rights and the Constitution**

Credits: 3 Grading Method: Regular, Pass-Fail

An interdisciplinary exploration of topics in law and society. Major scholarly interpretations of specific substantive fields of law.

Prerequisite: GVPT170; and GVPT331 or MLAW358W. Restriction: Must be enrolled in the Law and Society minor program. Credit only granted for GVPT432 or MLAW358Y. A study of civil rights in the American consitutional context, emphasizing freedom of religion, freedom of expression, minority discrimination, and the rights of defendants.

0101	Michael Spivey	Seats (Total: 5)
	MW 3:00pm - 4:15pm	TYD 1102

MLAW358Z **Selected Topics in Law and Society; Police Discretion and the 4th Amendment**

Credits: 3 Grading Method: Regular, Pass-Fail

An interdisciplinary exploration of topics in law and society. Major scholarly interpretations of specific substantive fields of law.

An exploration of the power police officers display when they apply their discretion to stop, question or arrest individuals. Students will dissect State and Federal Court decisions regarding appropriate use of these powers sanctioned by the Fourth Amendment.

0101	Christine White	Seats (Total: 20)
	MW 11:00am - 12:15pm	ASY 3221

MLAW378B **Special topics in Law and Society; Law and Theories of Intersubjectivity**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

An interdisciplinary examination in law and society, relying on scholarly interpretations of specific substantive topics of law

Restriction: Permission of MLAW Dept. only. The legacy of law in shaping social alienation, based on "fear of the other" will be explored. Generation upon generation of social movement have come with hope for society to transcend this fear of the other. This course will investigate the transformative potential of law and the challenges that are ingrained in legal structures.

0101	Robert Koulish	Seats (Total: 4)
	Class time/details on ELMs	ONLINE

MLAW378F **Special topics in Law and Society; Land, Shelter, and Social Justice**

Credits: 3 Grading Method: Regular

An interdisciplinary examination in law and society, relying on scholarly interpretations of specific substantive topics of law

From the evolution of tenant rights in the 20th century to the mortgage crisis of 2008, housing and land rights and disputes have figured prominently in how societies are shaped and develop over time. This course aims to explore some aspects of the diverse and increasingly complex body of laws, policies, and attempted solutions related to housing and land in a largely unequal world and society. How has private land ownership changed societies in the modern era? What is the role of the state in addressing housing shortages and injustices related to land and housing? What does a fundamental human right to housing look like in the real world? These issues, and others, including urbanization, re-colonization, climate change, and discrimination form the core of a course that will provide students with both local, national and international perspectives on a fundamental issue for all humans living today - shelter and sustenance.

0101	Brian Gilmore TuTh 2:00pm - 3:15pm	Seats (Total: 20) TWS 1313

MLAW378G **Special topics in Law and Society; Law and Policy of Inner City Policing**

Credits: 3 Grading Method: Regular, Pass-Fail

An interdisciplinary examination in law and society, relying on scholarly interpretations of specific substantive topics of law

This course focuses on, as a matter of law and policy, developing that needed strategic approach for police reform as it pertains to the almost daily media reports on instances of violent (and often deadly) police encounters with the public, resulting in a vicious cycle of diminished police legitimacy and weakened public cooperation, leading to increased crime and violence.

0101	Michael Greenberger TuTh 3:30pm - 4:45pm	Seats (Total: 20) TYD 2111

MLAW388 **Law and Society Internship**

Credits: 1-4 Grading Method: Regular, Pass-Fail

Participation in the Law and Society Internship (LASI) offers students the opportunity to enhance their education through practical skill building in the realm of law-related professionals.

Restricted to students within the Law and Society minor.

0101	Brandee Pettus Class time/details on ELMs	Seats (Total: 30) ONLINE
0201	Brandee Pettus Class time/details on ELMs	Seats (Total: 6) ONLINE

MLAW404 **Law & Society Capstone: Implications of Technology on Law & Society**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Student must be enrolled in the Law and Society minor.

An exploration of the implications of technology on law and society from a variety of perspectives.Significant issues will be taken from contemporary scholarship and court cases.

0101	Christine White Tu 3:30pm - 6:00pm	Seats (Total: 75) TYD 1101

MLAW411 **Appellate Advocacy**

Credits: 3 Grading Method: Regular, Pass-Fail

By the end of this class, and with proper supervision, students should be able to competently brief and argue an appeal before any appellate court in the country. the skills taught in this class also transfer to other contexts that demand clear legal analysis, efficient and comprehensive legal research, excellent writing and effective oral advocacy. For students interested in pre-law skills, whether they plan to go to law school or some career that requires analytical reasoning, persuasive writing, and advocacy skills.

0101	Erin Wrenn, Robert Koulish W 5:00pm - 7:30pm	Seats (Total: 18) WDS 1131

MLSC MD Language Science Ctr Spring 2022

MLSC308 **PULSAR Language Science Research Seminar**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Research seminar for students in the PULSAR language science program. Weekly presentations and discussions on diverse topics in language science research, as well as on developing research skills.

Restriction: Must be in PULSAR program or have permission of the instructor. Repeatable to 4 credits. Credit only granted for: BSOS338P or MLSC308. Formerly: BSOS388P.

0101	Tess Wood Contact instructor or department for details.	Seats (Total: 25)

MSML Machine Learning Spring 2022

MSML604 **Introduction to Optimization**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: Undergraduate courses in calculus and basic linear algebra. Recommended: DATA601.

Focuses on recognizing, solving, and analyzing optimization problems. Linear algebra overview: vector spaces and matrices, linear transformations, matrix algebra, projections, similarity transformations, norms, eigen-decomposition and SVD. Convex sets, convex functions, duality theory and optimality conditions. Unconstrained optimization: 1D search, steepest descent, Newton's method, conjugate gradient method, DFP and BFGS methods, stochastic gradient descent. Constrained optimization: projected gradient methods, linear programming, quadratic programming, penalty functions, and interior-point methods. Global search methods: simulated annealing, genetic algorithms, particle swarm optimization.

PCS1	Richard La	Seats (Total: 50)
	W 6:00pm - 8:45pm	CSI 1121
	Must be in Graduate Programs in Science Academy. All other graduate students must request permission. Contact oes@umd.edu.	

MSML605 **Computing Systems for Machine Learning**

Credits: 3

Grading Method: Regular, Audit

Restriction: Must be in the MPS in Machine Learning program.

Programming, software and hardware design and implementation issues of computing systems for machine learning. Topics in the programming/software domain will include: basic Python program structure, variables and assignment, built-in data types, flow control, functions and modules; basic I/O, and file operations. Classes, object-oriented programming and exceptions. Regular expressions, database access, network programming and sockets. Introduction to the Numpy, Scipy and Matplotlib libraries. Topics in the hardware domain include computer architecture, CPUs, single- and multi-core architectures, GPUs, memory and I/O systems, persistent storage, and virtual memory. Parallel processing architectures, multiprocessing and cluster processing.

PCS1	Manoj Franklin	Seats (Total: 50)
	Th 6:00pm - 8:45pm	IRB 1207
	Must be in Graduate Programs in Science Academy. All other graduate students must request permission. Contact oes@umd.edu.	

MSML641 **Natural Language Processing**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: DATA603 or MSML603. Cross-listed with: DATA641. Credit only granted for: DATA641 or MSML641.

Introduces fundamental concepts and techniques involved in getting computers to deal more intelligently with human language. Focused primarily on text (as opposed to speech), the class will offer a grounding in core NLP methods for text processing (such as lexical analysis, sequential tagging, syntactic parsing, semantic representations, text classification, unsupervised discovery of latent structure), key ideas in the application of deep learning to language tasks, and consideration of the role of language technology in modern society.

PCS1	Shabnam Tafreshi	Seats (Total: 50)
	Tu 6:00pm - 8:45pm	CSI 1122
	Must be in Graduate Programs in Science Academy. All other graduate students must request permission. Contact oes@umd.edu.	

MUED Music Education Spring 2022

MUED155 **Fundamentals for the Classroom Teacher**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in one of the following programs (Early Childhood Education; Elementary Education) ; or must be a Pre-Elementary Education major; or must be a Pre-Early Childhood Education major.

The fundamentals of music theory and practice, related to the needs of the classroom and the kindergarten teacher.

0101	Bri'Ann Wright	Seats (Total: 25)
	M 4:15pm - 6:45pm	PAC 2168

MUED187 **Pre-Professional Experiences II**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUED186. Restriction: Must be in Music Education program.

Regular on-site school visitation at elementary, middle and high school levels arranged to expand student understandings and reflections of music instruction in classroom settings.

0101	Allison Durbin	Seats (Total: 25)
	F 2:00pm - 2:50pm	PAC 2540
	Contact instructor or department for details.	

MUED216 **Percussion Technique and Pedagogy**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Music Education program.

Playing experience on percussion instruments. Historical and acoustical background. Scoring for percussion. Principles of improvisation. Basic concepts of teaching. Methods and materials. Techniques of individual and class instruction.

0101	Josanne Francis	Seats (Total: 15)
	MWF 8:00am - 8:50am	PAC 2540

MUED311 **Teaching Elementary Instrumental Music I**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUED187. Restriction: Must be in Music Education program.

Prepare instrumental-emphasis music education majors to synthesize the knowledge and skills that will enable them to teach fundamental musical skills at the elementary level.

0101	Mike Hewitt, David Miller	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	PAC 2540

MUED322 **Teaching General Music I**

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUED187 and MUED186. Restriction: Must be in Music Education program. Credit only granted for: MUED222 or MUED322. Formerly: MUED222.

Teaching General Music I is designed as a fundamental music methods course for students who are preparing for a career in general music. This course will focus on developmentally appropriate teaching practices for building musicianship in a general music setting.

0101	Robin Giebelhausen	Seats (Total: 15)
	MWF 10:00am - 10:50am	PAC 2130A

MUED411 **Teaching Elementary Instrumental Music II**

(Perm req)

Credits: 4

Grading Method: Regular, Pass-Fail

Prerequisite: MUED320 and MUED311. Restriction: Must be in Music Education program.

Prepare instrumental-emphasis music education majors to synthesize the knowledge and skills that will enable them to develop and/or maintain an exemplary curricular-oriented, research-based, comprehensive elementary instrumental music program.

0101	Stephanie Prichard	Seats (Total: 15)	
	Tu 10:00am - 12:00pm Th 8:00am - 12:00pm	PAC 2130A Location: TBA	Lab

MUED433 **Teaching Choral Music**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: MUED422. Restriction: Must be in Music Education program. Credit only granted for: MUED472 or MUED433. Formerly: MUED472.

Preparation for teaching choral classes through the integration of conducting technique, vocal pedagogy, knowledge of repertoire, and the application of appropriate instructional strategies in the context of peer teaching and field experience assignments.

0101	Kenneth Elpus	Seats (Total: 15)	
	W 4:00pm - 6:30pm Th 8:00am - 12:00pm	PAC 2130A Location: TBA	Lab

MUED474 **Field Experiences: Pre-Student Teaching**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: MUED420 and MUED411; or (MUED472 and MUED471). Restriction: Permission of ARHU-School of Music department; and senior standing.

Field experiences to fulfill teaching requirements in K-12 music teacher education program.

0101	Stephanie Prichard	Seats (Total: 15)
	TBA	PAC 2130A

MUED484 **Student Teaching in Elementary School: Music**

(Perm req)

Credits: 6 Grading Method: Regular, Pass-Fail

Corequisite: MUED494. Restriction: Permission of ARHU-School of Music department; and must be in Music Education program.

Fulfills elementary teaching requirements in K-12 music teacher education program. Limited to music education majors who have previously applied.

0101	Robin Giebelhausen	Seats (Total: 15)	
	Th 5:00pm - 6:30pm Contact instructor or department for details.	PAC 2130A	Lab

MUED494 **Student Teaching in Secondary School: Music**

(Perm req)

Credits: 6 Grading Method: Regular, Pass-Fail

Corequisite: MUED484. Restriction: Permission of ARHU-School of Music department; and must be in Music Education program.

Fulfill secondary teaching requirements in K-12 music teacher education program. Limited to music education majors who have previously applied.

Students must pay a $750.00 student teaching fee.

0101	Robin Giebelhausen	Seats (Total: 15)
	Contact instructor or department for details.	

MUED499C **Workshops, Clinics, Institutes; Creativity in Music Education**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Innovative and experimental dimensions of music education offered to meet the needs of music teachers and music supervisors allowing students to individualize their programs.

0101	Robin Giebelhausen	Seats (Total: 15)
	M 5:00pm - 7:30pm	PAC 2130A

MUED698C **Current Trends in Music Education; Creativity in Music Education**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

A survey of current and emerging philosophies, methodologies and curricula in music education and their implementation. The influence of educational and social changes and the expanding musical scene upon the music programs for children of all ages and for teacher education.

0101	Robin Giebelhausen	Seats (Total: 15)
	M 5:00pm - 7:30pm	PAC 2130A

MUED729 **Doctoral Colloquium in Music Education**

(Perm req)

Credits: 1 Grading Method: Sat-Fail, Audit

For students in PhD Progam in Music Education. Meets approximately 4-5 times per semester to read and discuss current work in the field, interact with visiting speakers, share work in progress, learn new tools and methods, and hear research presentations from one another

0101	Stephanie Prichard	Seats (Total: 10)
	TBA	PAC 2130A

MUED780 **Seminar in Music Teacher Education**

Credits: 3 Grading Method: Regular, Sat-Fail

Restriction: Must have doctoral standing in a Music Education program.

Development of knowledge and skills necessary for music teacher educators. Topics include history of and reform movements in music teacher education, recruitment, education and certification of music teachers and inservice programs.

0101	Stephanie Prichard	Seats (Total: 12)
	Tu 1:00pm - 3:30pm	PAC 2130A

MUSC School of Music Spring 2022

MUSC001 **MUSP Course Evaluation**

(Perm req)

Credits: 0 Grading Method:

Contact department for information to register for this course.

MUSC099 **Performance Attendance**

Credits: 0 Grading Method: Sat-Fail

Performance attendance laboratory for undergraduate music majors.

0101	Gilberto Cruz	Seats (Total: 200)
	Contact instructor or department for details.	

MUSC102B **Class Piano**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Functional piano training for beginners. Development of techniques for school and community playing. Basic piano techniques; chord, arpeggio and scale techniques; melody and song playing; simple accompaniments, improvisation for accompaniments and rhythms; sight reading and transposition and playing by ear.

0101	Johnny Shaw TuTh 9:30am - 10:45am	Seats (Total: 14) PAC 1123

MUSC103 **Beginning Class Piano II**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC102; or permission of ARHU-School of Music department.

Functional piano training for beginners. Development of techniques useful for school and community playing. Basic piano techniques; chord, arpeggio, and scale techniques; melody and song playing; simple accompaniments, improvisation for accompaniments and rhythms; sight reading and transposition, and playing by ear. MUSC103 is a continuation of MUSC102; elementary repertoire is begun.

Limited to music majors.

0101	Johnny Shaw TuTh 11:00am - 12:15pm	Seats (Total: 14) PAC 1123
0201	Yuhe Wang MWF 11:00am - 11:50am	Seats (Total: 14) PAC 1123
0301	Aleksandra Velgosha TuTh 2:00pm - 3:15pm	Seats (Total: 14) PAC 1123

MUSC106 **Beginning Classical Guitar**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Introduction to classical guitar notation, technique, literature and performance. No previous musical experience required.

0101	Gerard Kunkel MW 11:00am - 11:50am	Seats (Total: 12) PAC 1230

MUSC126 **Vocal Diction: English and Latin**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ARHU-School of Music department.

An introduction to the fundamentals of phonetics and sound production as applied to singing English vocal literature through detailed work with IPA, the International Phonetic Alphabet.

0101	Diba Alvi TuTh 11:00am - 11:50am	Seats (Total: 15) PAC 3164	

MUSC128 **Sight Reading For Pianists**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

A course to give the piano major an opportunity to develop proficiency in sight reading at the keyboard.

0101	Aleksandra Velgosha MW 10:00am - 10:50am	Seats (Total: 10) PAC 2201	

MUSC129A **Ensemble; Chamber Strings**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Contact instructor to make arrangements. For Music majors only.

0101	James Stern **Meets February 1, 2022 - May 10, 2022** TuTh 11:00am - 12:15pm	Seats (Total: 45) PAC 2201	Lab
0102	James Stern **Meets February 1, 2022 - May 10, 2022** TuTh 11:00am - 12:15pm	Seats (Total: 10) PAC 2201	Lab
0103	Instructor: TBA **Meets February 1, 2022 - May 10, 2022** TuTh 11:00am - 12:15pm	Seats (Total: 10) PAC 2201	Lab

0104	Instructor: TBA	Seats (Total: 10)	
	Meets February 1, 2022 - May 10, 2022		
	TuTh 11:00am - 12:15pm	PAC 2201	Lab

MUSC129B **Ensemble; Chamber Woodwinds**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Contact instructor to make arrangements. For Music majors only.

0101	Mark Hill	Seats (Total: 40)	
	Meets February 1, 2022 - May 10, 2022		
	TuTh 11:00am - 12:15pm	PAC 2201	Lab

MUSC129C **Ensemble; Chamber Brasses**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

For Music majors only.

0101	Willie Clark	Seats (Total: 30)	
	Meets February 1, 2022 - May 10, 2022		
	TuTh 11:00am - 12:15pm	PAC 2201	Lab

MUSC129G **Ensemble; Balinese Gamelan**

Credits: 1

Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	I Suadin	Seats (Total: 14)	
	Th 7:00pm - 8:30pm	PAC 1230	Lab

MUSC129K **Ensemble; Japanese Koto**

Credits: 1 Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Kyoko Okamoto	Seats (Total: 7)	
	Tu 5:30pm - 7:00pm	PAC 3160	Lab

MUSC129L **Ensemble; Advanced Japanese Koto**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Prerequisite: Contact instructor to make arrangements.

0101	Kyoko Okamoto	Seats (Total: 4)	
	Tu 7:00pm - 8:30pm	PAC 3160	Lab

MUSC129P **Ensemble; Percussion**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Ji Su Jung	Seats (Total: 15)	
	F 3:30pm - 6:00pm	PAC 2540	Lab
	W 5:00pm - 7:00pm	PAC 2540	Lab

MUSC129Q **Ensemble; Korean Percussion Ensemble**

Credits: 1 Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Sebastian Wang Th 7:00pm - 8:30pm	Seats (Total: 8) PAC 2170	Lab

MUSC129U **Ensemble; Tuba and Euphonium**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Craig Potter W 6:00pm - 6:50pm	Seats (Total: 20) Location: TBA	Lab

MUSC130 **What Does Music Mean?**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HA General Education: DSHU

Restriction: Must not be in any of the following programs (Music (Professional Program); Music Education).

An examination of how music creates meaning in different eras, through studying musical sound, biography, and social history.

0101	William Robin MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 14) BPS 1250 PAC 3160	Discussion
0102	William Robin MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 14) BPS 1250 PAC 3160	Discussion
0103	William Robin MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 14) BPS 1250 PAC 3160	Discussion

0104	William Robin MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 14) BPS 1250 PAC 3164	Discussion
0105	William Robin MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 14) BPS 1250 PAC 3164	Discussion

MUSC130H **What Does Music Mean?**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA | General Education: DSHU

Restriction: Must not be in any of the following programs (Music (Professional Program); Music Education).

An examination of how music creates meaning in different eras, through studying musical sound, biography, and social history.

0101	William Robin MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 13) BPS 1250 PAC 3164	Discussion

MUSC130S **What Does Music Mean?**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA | General Education: DSHU

Restriction: Must not be in any of the following programs (Music (Professional Program); Music Education).

An examination of how music creates meaning in different eras, through studying musical sound, biography, and social history.

0101	William Robin MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 9) BPS 1250 PAC 3160	Discussion

MUSC140 **Music Fundamentals I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA | General Education: DSSP

Restriction: Must not be in any of the following programs (Music (Professional Program); Music Education).

Introductory theory course. Notation, scales, intervals, triads, rhythm, form and basic aural skills.

0101	Jiheng Bi MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 18) PAC 2168 PAC 1108	 Discussion
0201	Jiheng Bi MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 18) PAC 2168 PAC 1108	 Discussion
0301	Isador Miller MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 18) PAC 3160 PAC 1108	 Discussion

MUSC151 **Theory of Music II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MUSC150.

A continuation of MUSC150, including study of more advanced harmonic techniques of the eighteenth century, such as modulation and chromatic harmonies. Emphasis on sight singing, ear training, analysis and compositional skills.

0101	Richard Layton MWF 8:00am - 8:50am TuTh 8:25am - 9:15am	Seats (Total: 7) PAC 2160 PAC 2160	 Lab
0102	Richard Layton MWF 8:00am - 8:50am TuTh 9:30am - 10:20am	Seats (Total: 7) PAC 2160 PAC 2160	 Lab
0201	Richard Layton MWF 9:00am - 9:50am TuTh 8:25am - 9:15am	Seats (Total: 7) PAC 2160 PAC 2164	 Lab
0202	Richard Layton MWF 9:00am - 9:50am TuTh 9:30am - 10:20am	Seats (Total: 7) PAC 2160 PAC 2164	 Lab

0301	Daniel Zimmerman MWF 10:00am - 10:50am TuTh 8:25am - 9:15am	Seats (Total: 7) PAC 2160 PAC 2168	 Lab
0302	Daniel Zimmerman MWF 10:00am - 10:50am TuTh 9:30am - 10:20am	Seats (Total: 7) PAC 2160 PAC 2168	 Lab

MUSC203 **Intermediate Class Piano II**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC202; or must have equivalent piano training.

Advanced keyboard techniques. Continuation of skills introduced in MUSC202. Transposition, modulation and sight reading; methods of teaching functional piano. Development of style in playing accompaniments and in playing for community singing. More advanced repertory.

0101	Yuhe Wang MWF 9:00am - 9:50am	Seats (Total: 10) PAC 1123	

MUSC205 **History of Popular Music, 1950-Present**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HA General Education: DSHU, DVUP

A historical survey of rock music (blues, rock, soul, metal, rap, etc.) from circa 1950 to the present, with emphasis on popular music as music and popular music as social history.

0101	Matthew Valnes MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 16) ARC 0204 PAC 2168	 Discussion
0102	Matthew Valnes MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 16) ARC 0204 PAC 2168	 Discussion
0103	Matthew Valnes MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 16) ARC 0204 PAC 2168	 Discussion

0104	Matthew Valnes MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 16) ARC 0204 PAC 2168	Discussion
0105	Matthew Valnes MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 16) ARC 0204 PAC 2168	Discussion
0106	Matthew Valnes MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 16) ARC 0204 PAC 2168	Discussion
0107	Matthew Valnes MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 16) ARC 0204 PAC 2164	Discussion
0108	Matthew Valnes MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 16) ARC 0204 PAC 2164	Discussion
0109	Matthew Valnes MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 16) ARC 0204 PAC 2164	Discussion
0110	Matthew Valnes MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 16) ARC 0204 PAC 2164	Discussion
0111	Matthew Valnes MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 16) ARC 0204 PAC 2164	Discussion
0112	Matthew Valnes MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 16) ARC 0204 PAC 2164	Discussion

MUSC210 **The Impact of Music on Life**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: HA, D | General Education: DSHU, DVUP

Credit only granted for: MUET210 or MUSC210. Formerly: MUET210.

Music as a part of culture. Materials drawn from traditions throughout the globe to illustrate issues of historical and contemporary significance, including the impact of race, class and gender on the study of music.

0101	Nicole Powlison MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 16) ARC 0204 PAC 3168	Discussion
0102	Nicole Powlison MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 16) ARC 0204 PAC 3168	Discussion
0103	Nicole Powlison MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 16) ARC 0204 PAC 3168	Discussion
0104	Nicole Powlison MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 16) ARC 0204 PAC 3168	Discussion
0105	Nicole Powlison MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 16) ARC 0204 PAC 3168	Discussion
0106	Nicole Powlison MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 16) ARC 0204 PAC 3168	Discussion
0107	Nicole Powlison MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 16) ARC 0204 PAC 3164	Discussion
0108	Nicole Powlison MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 16) ARC 0204 PAC 3164	Discussion
0109	Nicole Powlison MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 16) ARC 0204 PAC 3164	Discussion

0110	Nicole Powlison MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 16) ARC 0204 PLS 1172	Discussion
0111	Nicole Powlison MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 16) ARC 0204 PLS 1172	Discussion
0112	Nicole Powlison MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 16) ARC 0204 PLS 1172	Discussion

MUSC215 **World Popular Musics and Identity**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA, D | General Education: DSHU, DVUP

Credit only granted for: MUET200 or MUSC215. Formerly: MUET200.

Focus on popular musics in different cultures with an emphasis on cross-cultural comparisons and analysis of how musics and identity intersect.

0101	Laura Schnitker MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 16) MMH 1400 HBK 0108	Discussion
0102	Laura Schnitker MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 16) MMH 1400 HBK 0108	Discussion
0103	Laura Schnitker MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 16) MMH 1400 HBK 0108	Discussion
0104	Laura Schnitker MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 16) MMH 1400 HBK 0108	Discussion
0105	Laura Schnitker MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 16) MMH 1400 HBK 1108	Discussion

0106	Laura Schnitker MW 12:00pm - 12:50pm F 3:00pm - 3:50pm	Seats (Total: 16) MMH 1400 HBK 1108	Discussion
0107	Laura Schnitker MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 16) MMH 1400 HBK 1108	Discussion
0108	Laura Schnitker MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 16) MMH 1400 HBK 1108	Discussion
0109	Laura Schnitker MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 16) MMH 1400 HBK 0108	Discussion

MUSC220 **Selected Musical Cultures of the World**

Credits: 3	Grading Method: Regular, Pass-Fail	CORE: HA, D	General Education: DSHU, DVUP

Restriction: Must not be in any of the following programs: (Music (Professional Program); Music Education).

A critical and comparative exploration of musical practices from around the world in their social, political and economic contexts.

Also offered as ANTH298B. For Spring 2020; credit only granted for MUET220, MUSC220, or ANTH298B.

0101	Siv Lie MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 15) SQH 1120 PAC 3160	Discussion
0102	Siv Lie MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 15) SQH 1120 PAC 3160	Discussion
0103	Siv Lie MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 15) SQH 1120 PAC 3160	Discussion

0104	Siv Lie MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 15) SQH 1120 PAC 1809	 Discussion
0105	Siv Lie MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 15) SQH 1120 PAC 1809	 Discussion
0106	Siv Lie MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 15) SQH 1120 PAC 2160	 Discussion

MUSC226 **Vocal Diction: French**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ARHU-School of Music department. Restriction: Must be in a major within ARHU-School of Music department.

Augmentation of private voice study. Phonetics and diction for singers of French vocal literature.

0101	Diba Alvi TuTh 2:00pm - 2:50pm	Seats (Total: 20) PAC 3164

MUSC229A **Ensemble; Symphony Orchestra**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	David Neely TuTh 3:30pm - 6:30pm	Seats (Total: 70) PAC 1230	 Lab

MUSC229D **Ensemble; Wind Orchestra**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Open by audition. Contact instructor to make arrangements.

0101	Michael Votta	Seats (Total: 75)	
	TuTh 3:30pm - 6:30pm	PAC 2540	Lab

MUSC229E **Ensemble; Wind Ensemble**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Open by audition. Contact instructor to make arrangements.

0101	Andrea Brown	Seats (Total: 75)	
	MWF 11:00am - 12:30pm	PAC 2540	Lab

MUSC229G **Ensemble; Marching Band Repertoire**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Andrea Brown	Seats (Total: 60)
	Th 7:00pm - 10:00pm	PAC 2540

MUSC229I **Ensemble; Marching Band: Drumline and Auxiliary**

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Craig Potter, Andrea Brown	Seats (Total: 75)
	Th 6:30pm - 9:30pm	Location: TBA

0201	Andrea Brown, Craig Potter Contact instructor or department for details.	Seats (Total: 75)	

MUSC229J **Ensemble; Jazz Ensemble**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	Tim Powell MW 5:30pm - 7:15pm	Seats (Total: 25) PAC 1230	 Lab
0201	Tim Powell MW 1:00pm - 2:15pm	Seats (Total: 30) PAC 1230	 Lab
0301	Tim Powell M 7:30pm - 9:30pm	Seats (Total: 35) PAC 1230	 Lab

MUSC229K **Ensemble; Marching Band Dance Team**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Ann Kennedy Su 7:00pm - 9:30pm TuTh 6:30pm - 9:00pm F 3:00pm - 5:00pm	Seats (Total: 30) Location: TBA Location: TBA Location: TBA	 Lab Lab Lab

MUSC229P **Ensemble; Pep Band**

Credits: 1

Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Andrea Brown	Seats (Total: 165)	
	Contact instructor or department for details.		
0201	Andrea Brown	Seats (Total: 25)	
	Contact instructor or department for details.		

MUSC229R **Ensemble; Repertoire Orchestra**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	Jesse Leong	Seats (Total: 50)	
	MW 3:00pm - 5:00pm	PAC 1230	Lab

MUSC229U **Ensemble; University Band**

Credits: 1

Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Open by audition. Contact instructor to make arrangements.

0101	Craig Potter	Seats (Total: 100)	
	W 7:30pm - 9:30pm	PAC 2540	Lab

MUSC229Z **Ensemble; Jazz Combo**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	Gerard Kunkel Contact instructor or department for details.	Seats (Total: 5)
0201	Thomas Baldwin Contact instructor or department for details.	Seats (Total: 5)
0301	Corey Hewitt Contact instructor or department for details.	Seats (Total: 10)
0401	William Dunn Contact instructor or department for details.	Seats (Total: 10)

MUSC240 **Elements of Music Composition for Non-Majors**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC 140, or by permission of instructor. Recommended: Ability to read music on a grand staff (treble and bass clef). Restriction: Must not be in any of the following programs: (Music (Professional Program); Music Education). Credit only granted for: MUSC240 or HONR218M. Formerly: HONR218M.

Emphasizes learning concepts and techniques of music composition through the study of music theory and structure used in both classical and popular music forms. Students will compose music using computer assisted and composition tools. These tools include cloud based digital audio workstations and music notation programs. Compositions will be written in these musical styles but not limited to classical, jazz, and popular. Students will also explore methods of sharing their compositions on various digital platforms.

0101	William Evans Tu 2:00pm - 4:30pm	Seats (Total: 10) PAC 1108

MUSC251 **Advanced Theory of Music II**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MUSC250.

A continuation of MUSC250, concentrating on late nineteenth-century chromatic harmony and an introduction to twentieth-century melody and harmony. Emphasis on sight singing, ear training, analysis and compositional skills.

0101	Jared Kenlon TuTh 8:00am - 9:15am MW 9:00am - 9:50am	Seats (Total: 5) PAC 3164 PAC 3164	 Lab
0102	Jared Kenlon TuTh 8:00am - 9:15am MW 10:00am - 10:50am	Seats (Total: 7) PAC 3164 PAC 3164	 Lab
0201	Jared Kenlon TuTh 9:30am - 10:45am MW 9:00am - 9:50am	Seats (Total: 7) PAC 3164 PAC 2164	 Lab
0202	Jared Kenlon TuTh 9:30am - 10:45am MW 10:00am - 10:50am	Seats (Total: 7) PAC 3164 PAC 2164	 Lab
0301	Thomas DeLio TuTh 9:30am - 10:45am MW 9:00am - 9:50am	Seats (Total: 7) PAC 3160 PAC 2168	 Lab
0302	Thomas DeLio TuTh 9:30am - 10:45am MW 10:00am - 10:50am	Seats (Total: 7) PAC 3160 PAC 2168	 Lab

MUSC269F **Special Topics in Study Abroad II; Exploring Music and Society: Flamenco**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

MUSC269M **Special Topics in Study Abroad II; Czech Music**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

MUSC328 **Introduction to Chamber Music for Pianists**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

A course to introduce the piano major to chamber music at a moderately difficult level. Class instruction will center on actual rehearsal and coaching geared toward performance, and will be supplemented by further experience in applied instrumental studios.

0101	Jessica McKee	Seats (Total: 10)	
	Contact instructor or department for details.		

MUSC329A **Ensemble; University of Maryland Chorale**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	Matthew Goinz	Seats (Total: 80)	
	TuTh 4:30pm - 6:00pm	PAC 2201	Lab

MUSC329B **Ensemble; Chamber Singers**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	Edward Maclary	Seats (Total: 50)	
	MW 3:00pm - 3:50pm	PAC 2201	
	TuTh 3:30pm - 4:20pm	PAC 2201	

MUSC329E **Ensemble; Gospel Choir**

Credits: 1

Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Anne Carswell	Seats (Total: 60)	
	Th 7:00pm - 10:00pm	PAC 2201	Lab

MUSC329M **Ensemble; Men's Chorus**

Credits: 1 Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Nathan Lofton	Seats (Total: 40)
	MWF 12:00pm - 12:50pm	PAC 1230

MUSC329O **Ensemble; Opera Chorus**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Matthew Goinz, Jonathan King	Seats (Total: 30)	
	F 4:00pm - 6:00pm	PAC 2170	Lab

MUSC329W **Ensemble; Treble Choir**

Credits: 1 Grading Method: Regular, Pass-Fail

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Kenneth Elpus	Seats (Total: 60)
	MWF 12:00pm - 12:50pm	PAC 2201

MUSC360 **Music in Western Culture Before 1900**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC260. Restriction: Must be in a major within the ARHU-School of Music department. Credit only granted for: MUSC310 or MUSC360.

Course will be looking at roughly 800 years of Western art music in Europe and America (ca.1100-1900) through the lens of selected "moments"--intersections of historical space and time, observing music as an art form practiced in a public eye, both as a social event and a cultural practice.

0101	Olga Haldey MW 2:00pm - 2:50pm F 12:00pm - 12:50pm	Seats (Total: 10) PAC 2200 PAC 2160	 Discussion
0102	Olga Haldey MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 10) PAC 2200 PAC 2160	 Discussion
0103	Olga Haldey MW 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 10) PAC 2200 PAC 2160	 Discussion
0104	Olga Haldey MW 2:00pm - 2:50pm F 3:00pm - 3:50pm	Seats (Total: 10) PAC 2200 PAC 2160	 Discussion

MUSC369M **Special Topics in Study Abroad III; Masterpieces of Italian Opera**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

MUSC379 **Opera Workshop**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Open to music and non-music majors (by audition). Operatic production and performance, performance techniques and coaching, stage direction, set design, costume design and make-up. Repertory will include smaller operatic works, excerpts or scenes.

0101	Amanda Consol MW 4:00pm - 6:00pm	Seats (Total: 6) PAC 2170	

MUSC386 **Experiential Learning**

(Perm req)

Credits: 6 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of ARHU-School of Music department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

MUSC388 **Music Internship**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Pre-professional field work in music.

Prerequisite: permission of instructor.

Contact department for information to register for this course.

MUSC389 **Music Internship Analysis**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Documentation and evaluation of field work experience.

Contact department for information to register for this course.

MUSC400S **Music Pedagogy**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: MUSP315; and permission of ARHU-School of Music department.

Conference course. A study of major pedagogical treatises in music, and an evaluation of pedagogical techniques, materials, and procedures.

Contact department for information to register for this course.

MUSC400V **Music Pedagogy**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSP315; and permission of ARHU-School of Music department.

Conference course. A study of major pedagogical treatises in music, and an evaluation of pedagogical techniques, materials, and procedures.

0101	Diba Alvi	Seats (Total: 25)
	TuTh 9:30am - 10:45am	PAC 2201

MUSC436 **Jazz: Then and Now**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Major styles and influential artists of the past 75 years of jazz.

0101	Matthew Valnes	Seats (Total: 20)
	MW 4:15pm - 5:30pm	PAC 3160

MUSC438O **Area Studies in Ethnomusicology; Case Studies in Asia and the Pacific**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Advanced study of musics in selected parts of the world.

0101	John Witzleben	Seats (Total: 8)
	TuTh 2:00pm - 3:15pm	PAC 3110A

MUSC444 **Wind and Percussion Literature**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ARHU-School of Music department. Corequisite: MUSP420 or MUSP419.

Recital program notes and written projects in wind or percussion literature.

Contact department for information to register for this course.

MUSC445 **Survey of the Opera**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC330 and MUSC331; or students who have taken courses with comparable content may contact the department.

A study of the music, librettos and composers of the standard operas.

0101	Olga Haldey	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	PAC 2160

MUSC446 **String Literature**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSP316; and permission of ARHU-School of Music department.

Recital program notes and written projects in string literature.

Contact department for information to register for this course.

MUSC448 **Selected Topics in Music**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSC448A **Selected Topics in Music; Accompanying Practicum**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

0101	Mayron Tsong	Seats (Total: 10)
	Contact instructor or department for details.	

MUSC448B **Selected Topics in Music; Analysis of Popular Music**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of the instructor required.

0101	Daniel Zimmerman	Seats (Total: 15)
	W 4:30pm - 7:00pm	PAC 2160

MUSC448F **Selected Topics in Music; Style Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

0101	Robert Gibson	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	PAC 2168

MUSC448U **Selected Topics in Music; African American Musical Traditions**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

0101	Matthew Valnes TuTh 9:30am - 10:45am	Seats (Total: 20) PAC 3168

MUSC448W **Selected Topics in Music; Instrumental Pedagogy**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSC448Y **Selected Topics in Music; Clarinet Repair**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of the instructor required.

0101	Robert DiLutis F 4:00pm - 6:30pm	Seats (Total: 4) Location: TBA

MUSC450 **Musical Form**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC251.

A study of the principles of organization in music with emphasis on eighteenth and nineteenth century European music. Reading and analysis of scores exemplifying the musical forms.

0101	Jared Kenlon TuTh 2:00pm - 3:15pm	Seats (Total: 25) PAC 2168

MUSC454 **Jazz Improvisation II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC453; or students who have taken courses with comparable content may contact the department. And permission of ARHU-School of Music department. Credit only granted for: MUSC346 or MUSC454. Formerly: MUSC346.

Continuation of MUSC453 including scoring and transcription.

0101	Gerard Kunkel Th 12:30pm - 3:00pm	Seats (Total: 5) PAC 1208

MUSC456 **Jazz Arranging**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC455; and permission of ARHU-School of Music department. Credit only granted for: MUSC448N or MUSC456. Formerly: MUSC448N.

A comprehensive approach to jazz arranging. Topics to include chord scale theory, voicing techniques, part and score layout, and formal construction of an arrangement.

0101	Leigh Pilzer	Seats (Total: 12)
	TuTh 3:30pm - 4:45pm	PAC 2168

MUSC463 **Technology and a Career in Music**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Recommended: Ability to read music on a grand staff (treble and bass clef). Additional information: No previous experience with technology is required.

A hands-on introduction to technology as it applies to music creation and recording. Digital audio workstations, music notation software, and cloud-based music technology are used to create and manipulate musical examples with an eye toward their practical applications for professional musicians.

0101	Johannes Visser	Seats (Total: 18)
	Th 1:00pm - 3:30pm	PAC 1108

MUSC469F **Orchestral Excerpts for String Players; Bass**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	Richard Barber	Seats (Total: 5)
	M 6:00pm - 7:15pm	Location: TBA

MUSC469V **Orchestral Excerpts for String Players; HARP**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	Sarah Fuller	Seats (Total: 5)
	Contact instructor or department for details.	

MUSC470 **Harmonic and Contrapuntal Practices of the Twentieth Century**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC251; or students who have taken courses with comparable content may contact the department. And permission of ARHU-School of Music department.

A theoretical and analytical study of twentieth century materials.

0101	Mark Wilson	Seats (Total: 10)
	TuTh 2:00pm - 3:15pm	ONLINE

MUSC481 **Music in the Renaissance**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Survey of western music from 1450 to 1600.

0101	Barbara Haggh-Huglo	Seats (Total: 15)
	MW 11:00am - 12:30pm	PAC 3160

MUSC490 **Conducting**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: MUSC251.

Vocal and instrumental baton techniques.

0101	Nathan Lofton	Seats (Total: 12)
	MWF 11:00am - 11:50am	PAC 2201
0201	Andrea Brown	Seats (Total: 12)
	MWF 9:00am - 9:50am	PAC 2540

MUSC491 **Conducting II**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC490; or students who have taken courses with comparable content may contact the department.

Baton techniques applied to score reading, rehearsal techniques, tone production, style and interpretation.

Concurrent registration in MUED472.

0101	Edward Maclary, Amy Broadbent MW 1:00pm - 1:50pm	Seats (Total: 12) PAC 2201
0201	Andrea Brown MW 1:00pm - 1:50pm	Seats (Total: 12) PAC 2540

MUSC493 **Keyboard Music II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC492; and permission of ARHU-School of Music department.

The history and literature of harpsichord and solo piano music from the Romantic period to the present. Emphasis is placed on those segments of repertory which are encountered in performance and teaching situations at the present time.

0101	Mayron Tsong MW 11:00am - 12:15pm	Seats (Total: 15) PAC 3168

MUSC499 **Independent Studies**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Independent research on a topic chosen in consultation with the instructor, which may culminate in a paper or appropriate project.

Contact department for information to register for this course.

MUSC602 **Advanced Italian Lyric Diction**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

Restriction: Must be in one of the following programs (Music - Doctoral (Doctoral); Music - Master (Master's)) . And permission of instructor; or admission to graduate voice program.

Concepts, strategies and techniques for singing operatic and song literature in Italian: syllabification, vowels, stressed and unstressed syllables, dipthongs, glides and elisions, single and double consonants with emphasis on current performance practices.

0101	Kevin Short	Seats (Total: 15)
	Tu 10:30am - 12:00pm	PAC 1218

MUSC603 **Advanced German Lyric Diction**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

Restriction: Must be in one of the following programs (Music - Doctoral (Doctoral); Music - Master (Master's)) . And permission of instructor; or admission to graduate voice program.

Concepts, strategies and techniques for singing operatic and song literature in German: single and double consonants, the use of the glottal, the German closed (e) and (o) vowels, the "schwa" and consonant clusters. Mastery of the International Phonetic Alphabet (IPA) as it applies to "Hochdeutsch" will be expected.

0101	Delores Ziegler	Seats (Total: 15)
	Tu 10:30am - 12:00pm	PAC 2170

MUSC606 **Opera Repertory II**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

Prerequisite: MUSC605; or permission of instructor. Restriction: Must be in one of the following programs (Music - Doctoral (Doctoral); Music - Master (Master's)).

Continuation of MUSC 605. Advanced vocal coaching of selections from the Italian, French, German and English opera repertory: musical accuracy, language facility; diction clarity; and dramatic interpretation.

0101	Gran Wilson, Craig Kier	Seats (Total: 10)	
	Th 10:30am - 12:00pm	TWS 1121	Lab

MUSC608 **Chamber Music Repertory; Chamber Music Repertoire**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Prerequisite: graduate standing as a major in performance. A study, through performance, of diversified chamber music for standard media.

Contact department for information to register for this course.

MUSC609 **Piano Chamber Music Practicum and Analysis**

(Perm req)

Credits: 2 Grading Method: Regular

Study of repertoire written for piano in duos or with several instruments, to develop an accompanists advanced performance skills in listening, balance, nuance in dynamics, harmonic motion and phrasing.

0101	Rita Sloan	Seats (Total: 10)	
	Contact instructor or department for details.		

MUSC612 **Opera Techniques II**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: Minimum grade of B- in MUSC611. Corequisite: MUSC602. Restriction: Must be in one of the following programs (Music - Doctoral (Doctoral); Music - Master (Master's)) ; and permission of Director of Opera required.

Continuation of MUSC 611. Techniques for opera performance: Scene Study II; Movement II; and Mask.

0101	Craig Kier, Amanda Consol, Justina Lee	Seats (Total: 10)	
	TBA	PAC 2170	
	TBA	PAC 1218	Lab

MUSC614 **Opera Techniques IV**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: Minimum grade of B- in MUSC613. Corequisite: MUSC606 and MUSC604. Restriction: Must be in one of the following programs (Music - Doctoral (Doctoral); Music - Master (Master's)) ; and permission of Director of Opera required.

Continuation of MUSC 613. Techniques for opera performance: Scene Study IV and Movement IV.

0101	Craig Kier, Amanda Consol, Justina Lee	Seats (Total: 10)	
	TBA	PAC 2170	
	TBA	PAC 1218	Lab

MUSC629A **Ensemble; Symphony Orchestra**

(Perm req)

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	David Neely, Mark Wakefield	Seats (Total: 50)	
	TuTh 3:30pm - 6:30pm	PAC 1230	Lab

MUSC629C **Ensemble; Wind Ensemble**

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Andrea Brown	Seats (Total: 20)	
	MWF 11:00am - 12:30pm	PAC 2540	Lab

MUSC629G **Ensemble; Balinese Gamelan**

(Perm req)

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	I Suadin	Seats (Total: 1)	
	Th 7:00pm - 8:30pm	PAC 1230	Lab

MUSC629J **Ensemble; Jazz Ensemble**

(Perm req)

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	Tim Powell	Seats (Total: 20)	
	MW 5:30pm - 7:15pm	PAC 1230	Lab
0201	Tim Powell	Seats (Total: 5)	
	MW 1:00pm - 2:15pm	PAC 1230	Lab
0301	Tim Powell	Seats (Total: 10)	
	M 7:30pm - 9:30pm	PAC 1230	Lab

MUSC629K **Ensemble; Japanese Koto**

(Perm req)

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Kyoko Okamoto	Seats (Total: 2)	
	Tu 5:30pm - 7:00pm	PAC 3160	Lab

MUSC629L **Ensemble; Advanced Japanese Koto**

(Perm req)

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

Prerequisite: Contact instructor to make arrangements.

0101	Kyoko Okamoto	Seats (Total: 4)	
	Tu 7:00pm - 8:30pm	PAC 3160	Lab

MUSC629O **Ensemble; Tuba and Euphonium**

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Craig Potter	Seats (Total: 5)	
	W 6:00pm - 6:50pm	Location: TBA	

MUSC629P **Ensemble; Percussion Ensemble**

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Ji Su Jung	Seats (Total: 15)	
	F 3:30pm - 6:00pm	PAC 2540	Lab
	W 5:00pm - 7:00pm	PAC 2540	Lab

MUSC629Q **Ensemble; Korean Percussion Ensemble**

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Sebastian Wang	Seats (Total: 2)	
	Th 7:00pm - 8:30pm	PAC 2170	Lab

MUSC629R **Ensemble; Repertoire Orchestra**

(Perm req)

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	Jesse Leong	Seats (Total: 10)	
	MW 3:00pm - 5:00pm	PAC 1230	Lab

MUSC629U **Ensemble; University Band**

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

Open by audition. Contact instructor to make arrangements.

0101	Craig Potter	Seats (Total: 10)	
	W 7:30pm - 9:30pm	PAC 2540	Lab

MUSC629W **Ensemble; Wind Orchestra**

(Perm req)

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

Open by audition. Contact instructor to make arrangements.

0101	Michael Votta	Seats (Total: 30)	
	TuTh 3:30pm - 6:30pm	PAC 2540	Lab

MUSC629Z **Ensemble; Jazz Combo**

(Perm req)

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	Gerard Kunkel	Seats (Total: 5)
	Contact instructor or department for details.	

0201	Thomas Baldwin Contact instructor or department for details.	Seats (Total: 5)
0301	William Dunn Contact instructor or department for details.	Seats (Total: 5)
0401	William Dunn Contact instructor or department for details.	Seats (Total: 5)

MUSC632 **The Anthropology of Music**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of ARHU-School of Music department. Credit only granted for: MUET650 or MUSC632. Formerly: MUET650.

Explores how leading theoretical paradigms in socio-cultural anthropology have been incorporated into and shaped ethnomusicological research.

0101	Fernando Rios Th 3:30pm - 6:00pm	Seats (Total: 12) PAC 3110A

MUSC633 **Field Methods in Ethnomusicology**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Permission of ARHU-School of Music department.

Introduction to ethnographic theory and fieldwork methods (participant observation, interviewing, etc.) in ethnomusicology. Students develop and carry out their own fieldwork projects as part of the course.

0101	Siv Lie Tu 3:30pm - 6:00pm	Seats (Total: 12) PAC 3110A

MUSC645 **Seminar in Vocal Pedagogy**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MUSC400; or students who have taken courses with comparable content may contact the department.

A study of the physiological, psychological and acoustical aspects of the teaching of singing combined with independent study and research in areas of individual interest.

Advanced special students require department authorization.

0101	Lori Sen	Seats (Total: 12)	
	MW 9:30am - 10:45am	PAC 3168	

MUSC649A **Ensemble; University of Maryland Chorale**

(Perm req)

Credits: 1 Grading Method: Regular

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	Matthew Goinz, Mark Helms	Seats (Total: 10)	
	TuTh 4:30pm - 6:00pm	PAC 2201	Lab

MUSC649B **Ensemble; Chamber Singers**

(Perm req)

Credits: 1 Grading Method: Regular

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	Edward Maclary	Seats (Total: 10)	
	MW 3:00pm - 3:50pm	PAC 2201	
	TuTh 3:30pm - 4:20pm	PAC 2201	

MUSC649E **Ensemble; Gospel Choir**

Credits: 1 Grading Method: Regular

0101	Anne Carswell	Seats (Total: 10)	
	Th 7:00pm - 10:00pm	PAC 2201	Lab

MUSC649M **Ensemble; Men's Chorus**

Credits: 1 Grading Method: Regular

0101	Edward Maclary	Seats (Total: 10)	
	MWF 12:00pm - 12:50pm	PAC 1230	

MUSC649O **Ensemble; Opera Chorus**

(Perm req)

Credits: 1 Grading Method: Regular

0101	Edward Maclary	Seats (Total: 15)	
	F 4:00pm - 6:00pm	PAC 2170	Lab

MUSC649W **Ensemble; Treble Choir**

Credits: 1 Grading Method: Regular

0101	Kenneth Elpus	Seats (Total: 10)
	MWF 12:00pm - 12:50pm	PAC 2201

MUSC654 **Jazz Improvisation II**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MUSC653. Restriction: Permission of ARHU-School of Music department. Credit only granted for: MUSC654 or MUSC699Z. Formerly: MUSC699Z.

Continuation of MUSC653, study of jazz improvisation techniques through analysis, transcription and composition.

0101	Gerard Kunkel	Seats (Total: 5)
	Th 12:30pm - 3:00pm	PAC 1208

MUSC656 **Jazz Arranging**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MUSC655. Restriction: Permission of ARHU-School of Music department. Credit only granted for: MUSC656 or MUSC699N. Formerly: MUSC699N.

Comprehensive approach to jazz arranging, including chord scale theory, voicing techniques, part and score layout, and formal construction of an arrangement.

0101	Leigh Pilzer	Seats (Total: 12)
	TuTh 3:30pm - 4:45pm	PAC 2168

MUSC659A **Seminar in Repertoire and Pedagogy; Choral Repertoire and Pedagogy**

Credits: 2-3 Grading Method: Regular, Audit

Analysis and preparation of choral master works from all major style periods for the purpose of successful rehearsal and performance by conductors.

0101	Edward Maclary	Seats (Total: 6)
	M 4:00pm - 6:30pm	PAC 3164

MUSC659B **Seminar in Repertoire and Pedagogy; Orchestral Repertoire and Pedagogy**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Analysis and preparation of choral master works from all major style periods for the purpose of successful rehearsal and performance by conductors.

0101	David Neely	Seats (Total: 10)
	Contact instructor or department for details.	

MUSC659C **Seminar in Repertoire and Pedagogy; Wind Repertoire and Pedagogy**

(Perm req)

Credits: 2-3

Grading Method: Regular, Audit

Analysis and preparation of choral master works from all major style periods for the purpose of successful rehearsal and performance by conductors.

0101	Michael Votta	Seats (Total: 5)
	Contact instructor or department for details.	

MUSC669F **Orchestral Excerpts for String Players; BASS**

Credits: 1

Grading Method: Regular, Audit

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	Richard Barber	Seats (Total: 5)
	M 6:00pm - 7:15pm	Location: TBA

MUSC669V **Orchestral Excerpts for String Players; HARP**

Credits: 1

Grading Method: Regular, Audit

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	Sarah Fuller	Seats (Total: 5)
	Contact instructor or department for details.	

MUSC671 **Advanced Analytical Techniques II**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSC451; or permission of ARHU-School of Music department.

Analysis of representative masterpieces of the nineteenth and early twentieth centuries.

0101	Gretchen Horlacher	Seats (Total: 12)
	W 1:00pm - 3:30pm	PAC 2160

MUSC672 **Masterworks of the 20th Century: 1900-1950**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of ARHU-School of Music department; and must not have completed MUSC470. Credit only granted for: MUSC448M, MUSC470, MUSC672, or MUSC699M. Formerly: MUSC699M.

A comprehensive survey of Western Art-Music of the first half of the 20th Century with a more intensive study and analysis of composers who have had a profound influence in the development of compositional practice in the modern era.

0101	Mark Wilson	Seats (Total: 10)
	TuTh 2:00pm - 3:15pm	ONLINE

MUSC673 **Style Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MUSC251; and permission of ARHU-School of Music department. Restriction: Must not have completed MUSC448. Credit only granted for: MUSC673, MUSC448F, or MUSC699F. Formerly: MUSC699F.

An analytical study of musical style from the Middle Ages to present through analysis of selected compositions. The principle genres and composers of Medieval, Renaissance, Baroque, Classical, Romantic and 20th century music will be covered.

0101	Robert Gibson	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	PAC 2168

MUSC679R **Seminar in Ethnomusicology; Music, Ritual, and Religion**

(Perm req)

Credits: 3 Grading Method: Regular

Seminar topics address current issues, including gender, the social economy of music, ethnography of performance, etc.

0101	John Witzleben	Seats (Total: 8)
	W 3:30pm - 6:00pm	PAC 3110A

MUSC699 **Selected Topics in Music**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSC699A **Selected Topics in Music; Music, Art, and Architecture Pre-1700**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

0101	Barbara Haggh-Huglo	Seats (Total: 8)
	M 3:30pm - 6:00pm	PAC 3110A

MUSC699B **Selected Topics in Music; Analysis of Popular Music**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Daniel Zimmerman	Seats (Total: 15)
	W 4:30pm - 7:00pm	PAC 2160

MUSC699P **Selected Topics in Music; Music and Public Scholarship**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

0101	William Robin	Seats (Total: 8)
	MW 2:00pm - 3:15pm	PAC 3110A

MUSC699V **Selected Topics in Music; Vocal Coaching**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

0101	Michael Baitzer	Seats (Total: 10)
	Contact instructor or department for details.	

MUSC699W **Selected Topics in Music; Instrumental Pedagogy**

Credits: 3 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSC699Z **Selected Topics in Music; Opera for the Solo Vocalist**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

0101	Craig Kier MW 4:00pm - 6:00pm Contact instructor or department for details.	Seats (Total: 5) PAC 2170

MUSC758 **Advanced Aural Skills for Conductors**

(Perm req)

Credits: 1 Grading Method: Regular

Continuation of MUSC757, advanced aural skills necessary for conductors.

0101	David Neely W 1:00pm - 2:15pm	Seats (Total: 5) PAC 2126

MUSC799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

MUSC800A **Advanced Seminar in Music Pedagogy**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSC400; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor.

A detailed study of historical and contemporary methods of pedagogy, and analysis of pedagogical problems. Sectioning by instrument. Required of all candidates for the D.M.A. Degree in performance and literature.

0101	Rita Sloan Contact instructor or department for details.	Seats (Total: 5)

MUSC801A **Advanced Seminar in Music Pedagogy**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: MUSC400; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor.

A detailed study of historical and contemporary methods of pedagogy, and analysis of pedagogical problems. Sectioning by instrument. Required of all candidates for the D.M.A. Degree in performance and literature.

0101	Michael Baitzer	Seats (Total: 10)
	Contact instructor or department for details.	

MUSC801P **Advanced Seminar in Music Pedagogy**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSC400; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor.

A detailed study of historical and contemporary methods of pedagogy, and analysis of pedagogical problems. Sectioning by instrument. Required of all candidates for the D.M.A. Degree in performance and literature.

0101	Bradford Gowen	Seats (Total: 10)
	Th 2:30pm - 5:00pm	PAC 3168

MUSC801V **Advanced Seminar in Music Pedagogy**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSC400; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor.

A detailed study of historical and contemporary methods of pedagogy, and analysis of pedagogical problems. Sectioning by instrument. Required of all candidates for the D.M.A. Degree in performance and literature.

0101	Lori Sen	Seats (Total: 15)
	W 3:00pm - 5:30pm	PAC 3168

MUSC801W **Advanced Seminar in Music Pedagogy**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: MUSC400; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor.

A detailed study of historical and contemporary methods of pedagogy, and analysis of pedagogical problems. Sectioning by instrument. Required of all candidates for the D.M.A. Degree in performance and literature.

0101	Sarah Frisof Contact instructor or department for details.	Seats (Total: 10)
0201	Mark Hill Contact instructor or department for details.	Seats (Total: 10)
0301	Robert DiLutis Contact instructor or department for details.	Seats (Total: 10)
0401	Erich Heckscher Contact instructor or department for details.	Seats (Total: 10)
0501	Tim Powell Contact instructor or department for details.	Seats (Total: 10)
0601	Gregory Miller Contact instructor or department for details.	Seats (Total: 10)
0701	Paul Gekker Contact instructor or department for details.	Seats (Total: 10)
0801	Matthew Guilford Contact instructor or department for details.	Seats (Total: 10)
0901	Willie Clark Contact instructor or department for details.	Seats (Total: 10)
1001	Paul Kellner Contact instructor or department for details.	Seats (Total: 10)
1101	Ji Su Jung Contact instructor or department for details.	Seats (Total: 10)
1201	Joseph Grimmer Contact instructor or department for details.	Seats (Total: 5)

MUSC812 Doctoral Opera Techniques II

Credits: 2

Grading Method: Regular, Audit

Prerequisite: MUSC811; and permission of ARHU-School of Music department. Credit only granted for: MUSC612 or MUSC812.

Continuation of MUSC811. Techniques for opera preformance: Scene Study II; Acting II; Movement II: Stage Combat I; and Mask; and methodology seminar.

0101	Craig Kier, Justina Lee, Amanda Consol	Seats (Total: 5)	
	TBA	PAC 2170	
	TBA	PAC 1218	Lab

MUSC814 **Doctoral Opera Techniques IV**

Credits: 2

Grading Method: Regular, Audit

Prerequisite: MUSC813; and permission of ARHU-School of Music department. Credit only granted for: MUSC614 or MUSC814.

Continuation of MUSC813. Techniques for opera performance: Scene Study IV; Dance II; Movement IV; and methodology seminar.

0101	Craig Kier, Amanda Consol, Justina Lee	Seats (Total: 5)	
	TBA	PAC 2170	
	TBA	PAC 1218	Lab

MUSC830C **Doctoral Seminar in Music Literature**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: Must have completed at least twelve hours in music history and literature.

An analytical survey of the literature of music: keyboard music; vocal music; string music; wind instrument music; required of all candidates for the D.M.A. Degree in literature-performance.

0101	Instructor: TBA	Seats (Total: 8)
	Contact instructor or department for details.	

MUSC831C **Doctoral Seminar in Music Literature**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: MUSC830; or permission of ARHU-School of Music department.

An analytical survey of the literature of music: keyboard music; vocal music; string music; wind instrument music. Required of all candidates for the D.M.A. Degree in literature-performance.

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)

MUSC831S **Doctoral Seminar in Music Literature**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSC830; or permission of ARHU-School of Music department.

An analytical survey of the literature of music: keyboard music; vocal music; string music; wind instrument music. Required of all candidates for the D.M.A. Degree in literature-performance.

0101	Kenneth Slowik M 9:00am - 12:00pm	Seats (Total: 15) PAC 2126
0201	Sarah Fuller Contact instructor or department for details.	Seats (Total: 5)

MUSC831W **Doctoral Seminar in Music Literature**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MUSC830; or permission of ARHU-School of Music department.

An analytical survey of the literature of music: keyboard music; vocal music; string music; wind instrument music. Required of all candidates for the D.M.A. Degree in literature-performance.

0101	Sarah Frisof Contact instructor or department for details.	Seats (Total: 10)
0201	Mark Hill Contact instructor or department for details.	Seats (Total: 10)
0301	Robert DiLutis Contact instructor or department for details.	Seats (Total: 10)
0401	Joseph Grimmer Contact instructor or department for details.	Seats (Total: 10)
0501	Tim Powell Contact instructor or department for details.	Seats (Total: 10)

0601	Gregory Miller Contact instructor or department for details.	Seats (Total: 10)
0701	Paul Gekker Contact instructor or department for details.	Seats (Total: 10)
0801	Matthew Guilford Contact instructor or department for details.	Seats (Total: 10)
0901	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)
1001	Paul Kellner Contact instructor or department for details.	Seats (Total: 10)
1101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)

MUSC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

MUSC899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

MUSP Music Performance Spring 2022

MUSP102A **Music Performance; Piano**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP102B **Music Performance; Voice**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP102D **Music Performance; Viola**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP102E **Music Performance; Cello**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP102F **Music Performance; Bass**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP102G **Music Performance; Flute**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP102H **Music Performance; Oboe**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP102I **Music Performance; Clarinet**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP102J **Music Performance; Bassoon**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP102K **Music Performance; Saxophone**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP102L **Music Performance; Horn**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP102M **Music Performance; Trumpet**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP102N **Music Performance; Trombone**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP102O **Music Performance; Tuba**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP102P **Music Performance; Euphonium**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP102Q **Music Performance; Percussion**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP102S **Music Performance; Guitar**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP102T **Music Performance; Composition**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP103A **Music Performance; Piano**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP103B **Music Performance; Voice**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP103C **Music Performance; Violin**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP103D **Music Performance; Viola**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP103E **Music Performance; Cello**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP103F **Music Performance; Bass**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP103G **Music Performance; Flute**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP103H **Music Performance; Oboe**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP103I **Music Performance; Clarinet**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP103J **Music Performance; Bassoon**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP103K **Music Performance; Saxophone**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP103L **Music Performance; Horn**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP103M **Music Performance; Trumpet**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP103N **Music Performance; Trombone**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP103O **Music Performance; Tuba**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP103P **Music Performance; Euphonium**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP103Q **Music Performance; Percussion**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP103S **Music Performance; Guitar**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP109A **Music Performance; Piano**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP109B **Music Performance; Voice**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP109C **Music Performance; Violin**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP109D **Music Performance; Viola**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP109E **Music Performance; Cello**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP109F **Music Performance; Bass**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP109G **Music Performance; Flute**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP109H **Music Performance; Oboe**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP109I **Music Performance; Clarinet**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP109J **Music Performance; Bassoon**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP109K **Music Performance; Saxophone**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP109L **Music Performance; Horn**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP109M **Music Performance; Trumpet**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP109N **Music Performance; Trombone**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP109O **Music Performance; Tuba**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP109P **Music Performance; Euphonium**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP109Q **Music Performance; Percussion**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP109S **Music Performance; Guitar**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP109V **Music Performance; Harp**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP110A **Music Performance; Piano**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP110B **Music Performance; Voice**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP110C **Music Performance; Violin**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP110D **Music Performance; Viola**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP110E **Music Performance; Cello**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP110F **Music Performance; Bass**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP110G **Music Performance; Flute**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP110H **Music Performance; Oboe**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP110I **Music Performance; Clarinet**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP110J **Music Performance; Bassoon**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP110K **Music Performance; Saxophone**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP110L **Music Performance; Horn**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP110M **Music Performance; Trumpet**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP110N **Music Performance; Trombone**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP110O **Music Performance; Tuba**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP110P **Music Performance; Euphonium**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP110Q **Music Performance; Percussion**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP110S **Music Performance; Guitar**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP110V **Music Performance; Harp**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP119A **Music Performance; Piano**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP119B **Music Performance; Voice**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP119C **Music Performance; Violin**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP119D **Music Performance; Viola**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP119E **Music Performance; Cello**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP119F **Music Performance; Bass**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP119G **Music Performance; Flute**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP119H **Music Performance; Oboe**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP119I **Music Performance; Clarinet**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP119J **Music Performance; Bassoon**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP119K **Music Performance; Saxophone**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP119L **Music Performance; Horn**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP119M **Music Performance; Trumpet**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP119N **Music Performance; Trombone**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP119O **Music Performance; Tuba**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP119P **Music Performance; Euphonium**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP119Q **Music Performance; Percussion**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP119T **Music Performance; Composition**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP119V **Music Performance; Harp**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP119W **Music Performance; Electronic Composition**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP120A **Music Performance; Piano**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP120B **Music Performance; Voice**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP120C **Music Performance; Violin**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP120D **Music Performance; Viola**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP120E **Music Performance; Cello**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP120F **Music Performance; Bass**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP120G **Music Performance; Flute**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP120H **Music Performance; Oboe**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP120I **Music Performance; Clarinet**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP120J **Music Performance; Bassoon**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP120K **Music Performance; Saxophone**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP120L **Music Performance; Horn**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP120M **Music Performance; Trumpet**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP120N **Music Performance; Trombone**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP120O **Music Performance; Tuba**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP120P **Music Performance; Euphonium**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP120Q **Music Performance; Percussion**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP120S **Music Performance; Guitar**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP120T **Music Performance; Composition**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP120V **Music Performance; Harp**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP120W **Music Performance; Electronic Composition**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP202A **Music Performance; Piano**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP202B **Music Performance; Voice**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP202C **Music Performance; Violin**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP202D **Music Performance; Viola**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP202E **Music Performance; Cello**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP202F **Music Performance; Bass**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP202G **Music Performance; Flute**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP202H **Music Performance; Oboe**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP202I **Music Performance; Clarinet**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP202J **Music Performance; Bassoon**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP202K **Music Performance; Saxophone**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP202L **Music Performance; Horn**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP202M **Music Performance; Trumpet**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP202N **Music Performance; Trombone**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP202O **Music Performance; Tuba**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP202P **Music Performance; Euphonium**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP202Q **Music Performance; Percussion**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP202S **Music Performance; Guitar**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP203A **Music Performance; Piano**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP203B **Music Performance; Voice**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP203C **Music Performance; Violin**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP203D **Music Performance; Viola**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP203E **Music Performance; Cello**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP203F **Music Performance; Bass**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP203G **Music Performance; Flute**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP203H **Music Performance; Oboe**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP203I **Music Performance; Clarinet**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP203J **Music Performance; Bassoon**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP203K **Music Performance; Saxophone**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP203L **Music Performance; Horn**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP203M **Music Performance; Trumpet**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP203N **Music Performance; Trombone**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP203O **Music Performance; Tuba**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP203P **Music Performance; Euphonium**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP203Q **Music Performance; Percussion**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP203S **Music Performance; Guitar**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP203V **Music Performance**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP207A **Music Performance; Piano**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP207B **Music Performance; Voice**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP207C **Music Performance; Violin**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP207D **Music Performance; Viola**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP207E **Music Performance; Cello**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP207F **Music Performance; Bass**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP207G **Music Performance; Flute**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP207H **Music Performance; Oboe**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP207I **Music Performance; Clarinet**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP207J **Music Performance; Bassoon**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP207K **Music Performance; Saxophone**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP207L **Music Performance; Horn**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP207M **Music Performance; Trumpet**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP207N **Music Performance; Trombone**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP207O **Music Performance; Tuba**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP207P **Music Performance; Euphonium**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP207Q **Music Performance; Percussion**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP207S **Music Performance; Guitar**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP207V **Music Performance; Harp**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP208A **Music Performance; Piano**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP208B **Music Performance; Voice**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP208C **Music Performance; Music Performanc: Violin**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSP208D **Music Performance; Viola**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP208E **Music Performance; Cello**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP208F **Music Performance; Bass**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP208G **Music Performance; Flute**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP208H **Music Performance; Oboe**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP208I **Music Performance; Clarinet**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP208J **Music Performance; Bassoon**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP208K **Music Performance; Saxophone**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP208L **Music Performance; Horn**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP208M **Music Performance; Trumpet**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP208N **Music Performance; Trombone**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP208O **Music Performance; Tuba**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP208P **Music Performance; Euphonium**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP208Q **Music Performance; Percussion**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP208S **Music Performance; Guitar**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP208V **Music Performance; Harp**

(Perm req)

Credits: 2-4 Grading Method: Regular

Contact department for information to register for this course.

MUSP217A **Music Performance; Piano**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP217B **Music Performance; Voice**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP217C **Music Performance; Violin**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP217D **Music Performance; Viola**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP217E **Music Performance; Cello**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP217F **Music Performance; Bass**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP217G **Music Performance; Flute**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP217H **Music Performance; Oboe**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP217I **Music Performance; Clarinet**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP217J **Music Performance; Bassoon**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP217K **Music Performance; Saxophone**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP217L **Music Performance; Horn**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP217M **Music Performance; Trumpet**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP217N **Music Performance; Trombone**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP217O **Music Performance; Tuba**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP217P **Music Performance; Euphonium**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP217Q **Music Performance; Percussion**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP217T **Music Performance; Composition**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP217V **Music Performance; Harp**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP217W **Music Performance; Electronic Composition**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP218A **Music Performance; Piano**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP218B **Music Performance; Voice**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP218C **Music Performance; Violin**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP218D **Music Performance; Viola**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP218E **Music Performance; Cello**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP218F **Music Performance; Bass**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP218G **Music Performance; Flute**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP218H **Music Performance; Oboe**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP218I **Music Performance; Clarinet**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP218J **Music Performance; Bassoon**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP218K **Music Performance; Saxophone**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP218L **Music Performance; Horn**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP218M **Music Performance; Trumpet**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP218N **Music Performance; Trombone**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP218O **Music Performance; Tuba**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP218P **Music Performance; Euphonium**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP218Q **Music Performance; Percussion**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP218S **Music Performance; Guitar**

(Perm req) Credits: 2 Grading Method: Regular

0101	Gerard Kunkel	Seats (Total: 5)	
	F 12:00pm - 1:15pm	Location: TBA	Lab
	Contact instructor or department for details.		

MUSP218T **Music Performance; Composition**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP218V **Music Performance; Harp**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP218W **Music Performance; Electronic Composition**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP302A **Music Performance; Piano**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP302B **Music Performance; Voice**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP302C **Music Performance; Violin**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP302D **Music Performance; Viola**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP302E **Music Performance; Cello**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP302F **Music Performance; Bass**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP302G **Music Performance; Flute**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP302H **Music Performance; Oboe**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP302I **Music Performance; Clarinet**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP302J **Music Performance; Bassoon**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP302K **Music Performance; Saxophone**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP302L **Music Performance; Horn**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP302M **Music Performance; Trumpet**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP302N **Music Performance; Trombone**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP302O **Music Performance; Tuba**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP302P **Music Performance; Euphonium**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP302Q **Music Performance; Percussion**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP302S **Music Performance; Guitar**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP302V **Music Performance; Harp**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP303A **Music Performance; Piano**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP303B **Music Performance; Voice**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP303C **Music Performance; Violin**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP303D **Music Performance; Viola**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP303E **Music Performance; Cello**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP303F **Music Performance; Bass**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP303G **Music Performance; Flute**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP303H **Music Performance; Oboe**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP303I **Music Performance; Clarinet**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP303J **Music Performance; Bassoon**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP303K **Music Performance; Saxophone**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP303L **Music Performance; Horn**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP303M **Music Performance; Trumpet**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP303N **Music Performance; Trombone**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP303O **Music Performance; Tuba**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP303P **Music Performance; Euphonium**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP303Q **Music Performance; Percussion**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP303S **Music Performance; Guitar**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP303T **Music Performance**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

0201	Thomas DeLio	Seats (Total: 5)
	Contact instructor or department for details.	

MUSP303V **Music Performance; Harp**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP305A **Music Performance; Piano**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP305B **Music Performance; Voice**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP305C **Music Performance; Violin**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP305D **Music Performance; Viola**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP305E **Music Performance; Cello**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP305F **Music Performance; Bass**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP305G **Music Performance; Flute**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP305H **Music Performance; Oboe**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP305I **Music Performance; Clarinet**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP305J **Music Performance; Bassoon**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP305K **Music Performance; Saxophone**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP305L **Music Performance; Horn**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP305M **Music Performance; Trumpet**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP305N **Music Performance; Trombone**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP305O **Music Performance; Tuba**

(Perm req)

Credits: 2-4 Grading Method: Regular

Contact department for information to register for this course.

MUSP305P **Music Performance; Euphonium**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP305Q **Music Performance; Percussion**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP305S **Music Performance; Guitar**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP305V **Music Performance; Harp**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP306A **Music Performance; Piano**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP306B **Music Performance; Voice**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP306C **Music Performance; Violin**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP306D **Music Performance; Viola**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP306E **Music Performance; Cello**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP306F **Music Performance; Bass**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP306G **Music Performance; Flute**

(Perm req) Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP306H **Music Performance; Oboe**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP306I **Music Performance; Clarinet**

(Perm req)

Credits: 2 Grading Method: Regular

Contact department for information to register for this course.

MUSP306J **Music Performance; Bassoon**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP306K **Music Performance; Saxophone**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP306L **Music Performance; Horn**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP306M **Music Performance; Trumpet**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP306N **Music Performance; Trombone**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP306O **Music Performance; Tuba**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP306P **Music Performance; Euphonium**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP306Q **Music Performance; Percussion**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP306S **Music Performance; Guitar**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP306V **Music Performance; Harp**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP315A **Music Performance; Piano**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP315B **Music Performance; Voice**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP315C **Music Performance; Violin**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP315D **Music Performance; Viola**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP315E **Music Performance; Cello**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP315F **Music Performance; Bass**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP315G **Music Performance; Flute**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP315H **Music Performance; Oboe**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP315I **Music Performance; Clarinet**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP315J **Music Performance; Bassoon**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP315K **Music Performance; Saxophone**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP315L **Music Performance; Horn**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP315M **Music Performance; Trumpet**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP315N **Music Performance; Trombone**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP315O **Music Performance; Tuba**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP315P **Music Performance; Euphonium**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP315Q **Music Performance; Percussion**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP315T **Music Performance; Composition**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP315V **Music Performance; Harp**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP315W **Music Performance; Electronic Composition**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP316A **Music Performance; Piano**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP316B **Music Performance; Voice**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP316C **Music Performance; Violin**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP316D **Music Performance; Viola**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP316E **Music Performance; Cello**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP316F **Music Performance; Bass**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP316G **Music Performance; Flute**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP316H **Music Performance; Oboe**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP316I **Music Performance; Clarinet**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP316J **Music Performance; Bassoon**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP316K **Music Performance; Saxophone**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP316L **Music Performance; Horn**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP316M **Music Performance; Trumpet**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP316N **Music Performance; Trombone**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP316O **Music Performance; Tuba**

(Perm req) Credits: 2 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP316P **Music Performance; Euphonium**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP316Q **Music Performance; Percussion**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP316T **Music Performance; Composition**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP316V **Music Performance; Harp**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP316W **Music Performance; Electronic Composition**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP402A **Music Performance; Piano**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402B **Music Performance; Voice**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402C **Music Performance; Violin**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402D **Music Performance; Viola**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402E **Music Performance; Cello**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402F **Music Performance; Bass**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402G **Music Performance; Flute**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402H **Music Performance; Oboe**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402I **Music Performance; Clarinet**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402J **Music Performance; Bassoon**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402K **Music Performance; Saxophone**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402L **Music Performance; Horn**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402M **Music Performance; Trumpet**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402N **Music Performance; Trombone**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402O **Music Performance; Tuba**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402P **Music Performance; Euphonium**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402Q **Music Performance; Percussion**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP402S **Music Performance; Guitar**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403A **Music Performance; Piano**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403B **Music Performance; Voice**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403C **Music Performance; Violin**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403D **Music Performance; Viola**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403E **Music Performance; Cello**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403F **Music Performance; Bass**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403G **Music Performance; Flute**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403H **Music Performance; Oboe**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403I **Music Performance; Clarinet**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403J **Music Performance; Bassoon**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403K **Music Performance; Saxophone**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403L **Music Performance; Horn**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403M **Music Performance; Trumpet**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403N **Music Performance; Trombone**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403O **Music Performance; Tuba**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403P **Music Performance; Euphonium**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403Q **Music Performance; Percussion**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP403S **Music Performance; Guitar**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course, in the minor series.

Contact department for information to register for this course.

MUSP409A **Music Performance; Piano**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409B **Music Performance; Voice**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409C **Music Performance; Violin**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409D **Music Performance; Viola**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409E **Music Performance; Cello**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409F **Music Performance; Bass**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409G **Music Performance; Flute**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409H **Music Performance; Oboe**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409I **Music Performance; Clarinet**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409J **Music Performance; Bassoon**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409K **Music Performance; Saxophone**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409L **Music Performance; Horn**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409M **Music Performance; Trumpet**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409N **Music Performance; Trombone**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409O **Music Performance; Tuba**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409P **Music Performance; Euphonium**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409Q **Music Performance; Percussion**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409S **Music Performance; Guitar**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP409V **Music Performance; Harp**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series.

Contact department for information to register for this course.

MUSP410A **Music Performance; Piano**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410B **Music Performance; Voice**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410C **Music Performance; Violin**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410D **Music Performance; Viola**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410E **Music Performance; Cello**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410F **Music Performance; Bass**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410G **Music Performance; Flute**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410H **Music Performance; Oboe**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410I **Music Performance; Clarinet**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410J **Music Performance; Bassoon**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410K **Music Performance; Saxophone**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410L **Music Performance; Horn**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410M **Music Performance; Trumpet**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410N **Music Performance; Trombone**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410O **Music Performance; Tuba**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410P **Music Performance; Euphonium**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410Q **Music Performance; Percussion**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410S **Music Performance; Guitar**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP410V **Music Performance; Harp**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the principal series. Recital required.

Contact department for information to register for this course.

MUSP419A **Music Performance; Piano**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419B **Music Performance; Voice**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419C **Music Performance; Violin**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419D **Music Performance; Viola**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419E **Music Performance; Cello**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419F **Music Performance; Bass**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419G **Music Performance; Flute**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419H **Music Performance; Oboe**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419I **Music Performance; Clarinet**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419J **Music Performance; Bassoon**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419K **Music Performance; Saxophone**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419L **Music Performance; Horn**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419M **Music Performance; Trumpet**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419N **Music Performance; Trombone**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419O **Music Performance; Tuba**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419P **Music Performance; Euphonium**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419Q **Music Performance; Percussion**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419S **Music Performance; Guitar**

(Perm req)

Credits: 2 Grading Method: Regular

Senior course in the major series.

Contact department for information to register for this course.

MUSP419T **Music Performance; Composition**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419V **Music Performance; Harp**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP419W **Music Performance; Electronic Composition**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Senior course in the major series.

Contact department for information to register for this course.

MUSP420A **Senior Recital; Senior Recital**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420B **Senior Recital; Senior Recital**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420C **Senior Recital; Senior Recital**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420D **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 Grading Method: Regular, Audit General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420E **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 Grading Method: Regular General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420F **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 Grading Method: Regular, Audit General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420G **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 Grading Method: Regular, Audit General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420H **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 Grading Method: Regular, Audit General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420I **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 Grading Method: Regular, Audit General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420J **Senior Recital; Senior Recital**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420K **Senior Recital; Senior Recital**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420L **Senior Recital; Senior Recital**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420M **Senior Recital; Senior Recital**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420N **Senior Recital; Senior Recital**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420O **Senior Recital; Senior Recital**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420P **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 Grading Method: Regular, Audit General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420Q **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 Grading Method: Regular, Audit General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420S **Senior Recital**

(Perm req)

Credits: 4 Grading Method: Regular General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420T **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 Grading Method: Regular, Audit General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420V **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 Grading Method: Regular, Audit General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP420W **Senior Recital; Senior Recital**

(Perm req)

Credits: 4 Grading Method: Regular, Audit General Education: DSSP

Senior course in the major series. Recital required.

Contact department for information to register for this course.

MUSP609A **Interpretation and Repertoire; Piano**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP609B **Interpretation and Repertoire; Voice**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP609D **Interpretation and Repertoire; Viola**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP609E **Interpretation and Repertoire; Cello**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP609F **Interpretation and Repertoire; Bass**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP609G **Interpretation and Repertoire; Flute**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP609H **Interpretation and Repertoire; Oboe**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP609I **Interpretation and Repertoire; Clarinet**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP609J **Interpretation and Repertoire; Bassoon**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP609K **Interpretation and Repertoire; Saxophone**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP609L **Interpretation and Repertoire; Horn**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP609M **Interpretation and Repertoire; Trumpet**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP609N **Interpretation and Repertoire; Trombone**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP609O **Interpretation and Repertoire; Tuba**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP609P **Interpretation and Repertoire; Euphonium**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP609Q **Interpretation and Repertoire; Percussion**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP609S **Interpretation and Repertoire; World Instruments**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP609T **Interpretation and Repertoire; Composition**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP609U **Interpretation and Repertoire; Conducting**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP609V **Interpretation and Repertoire; Harp**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP609X **Interpretation and Repertoire; Historical Instruments - Keyboard**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP610A **Graduate Music Performance; Piano**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP610B **Graduate Music Performance; Voice**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP610D **Graduate Music Performance; Viola**

(Perm req) Credits: 4 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP610E **Graduate Music Performance; Cello**

(Perm req) Credits: 4 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP610F **Graduate Music Performance; Bass**

(Perm req) Credits: 4 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP610G **Graduate Music Performance; Flute**

(Perm req) Credits: 4 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP610H **Graduate Music Performance; Oboe**

(Perm req) Credits: 4 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP610I **Graduate Music Performance; Clarinet**

(Perm req) Credits: 4 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP610J **Graduate Music Performance; Bassoon**

(Perm req) Credits: 4 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP610K **Graduate Music Performance; Saxophone**

(Perm req) Credits: 4 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP610L **Graduate Music Performance; Horn**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP610M **Graduate Music Performance; Trumpet**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP610N **Graduate Music Performance; Trombone**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP610O **Graduate Music Performance; Tuba**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP610P **Graduate Music Performance; Euphonium**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP610Q **Graduate Music Performance; Percussion**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP610S **Graduate Music Performance; Guitar**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP610T **Graduate Music Performance; Composition**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP610U **Graduate Music Performance; Conducting**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP610V **Graduate Music Performance; Harp**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP610X **Graduate Music Performance; Historical Instruments - Keyboard**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSP619A **Interpretation and Repertoire; Piano**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619B **Interpretation and Repertoire; Voice**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619C **Interpretation and Repertoire; Violin**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619D **Interpretation and Repertoire; Viola**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619E **Interpretation and Repertoire; Cello**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619F **Interpretation and Repertoire; Bass**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619G **Interpretation and Repertoire; Flute**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619H **Interpretation and Repertoire; Oboe**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619I **Interpretation and Repertoire; Clarinet**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619J **Interpretation and Repertoire; Bassoon**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619K **Interpretation and Repertoire; Saxophone**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619L **Interpretation and Repertoire; Horn**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619M **Interpretation and Repertoire; Trumpet**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619N **Interpretation and Repertoire; Trombone**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619O **Interpretation and Repertoire; Tuba**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619P **Interpretation and Repertoire; Euphonium**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619Q **Interpretation and Repertoire; Percussion**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619S **Interpretation and Repertoire; Guitar**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619T **Interpretation and Repertoire; Composition**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619U **Interpretation and Repertoire; Conducting**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619V **Interpretation and Repertoire; Harp**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619W **Interpretation and Repertoire; Electronic Composition**

(Perm req)

Credits: 2-4 Grading Method: Regular, Audit

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP619X **Interpretation and Repertoire; Opera**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: departmental audition and permission of Department Chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP620A **Graduate Music Performance; Piano**

(Perm req)

Credits: 4 Grading Method: Regular, Audit

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620B **Graduate Music Performance; Voice**

(Perm req)

Credits: 4 Grading Method: Regular, Audit

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620C **Graduate Music Performance; Violin**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620D **Graduate Music Performance; Viola**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620E **Graduate Music Performance; Cello**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620F **Graduate Music Performance; Bass**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620G **Graduate Music Performance; Flute**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620H **Graduate Music Performance; Oboe**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620I **Graduate Music Performance; Clarinet**

(Perm req)

Credits: 4 Grading Method: Regular, Audit

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620J **Graduate Music Performance; Bassoon**

(Perm req)

Credits: 4 Grading Method: Regular, Audit

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620K **Graduate Music Performance; Saxophone**

(Perm req)

Credits: 4 Grading Method: Regular, Audit

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620L **Graduate Music Performance; Horn**

(Perm req)

Credits: 4 Grading Method: Regular, Audit

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620M **Graduate Music Performance; Trumpet**

(Perm req)

Credits: 4 Grading Method: Regular, Audit

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620N **Graduate Music Performance; Trombone**

(Perm req)

Credits: 4 Grading Method: Regular, Audit

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620O **Graduate Music Performance; Tuba**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620P **Graduate Music Performance; Euphonium**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620Q **Graduate Music Performance; Percussion**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620S **Graduate Music Performance; Guitar**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620T **Graduate Music Performance; Composition**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620U **Graduate Music Performance; Conducting**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620V **Graduate Music Performance; Harp**

(Perm req)

Credits: 4 Grading Method: Regular, Audit

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620W **Graduate Music Performance; Electronic Composition**

(Perm req)

Credits: 4 Grading Method: Regular, Audit

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP620X **Graduate Music Performance; Opera**

(Perm req)

Credits: 4 Grading Method: Regular

Prerequisite: MUSP 619 and permission of Department Chairman. Recital course in the major series.

Contact department for information to register for this course.

MUSP621A **Interpretation, Repertoire, and Performance**

(Perm req)

Credits: 2-4 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSP619. Corequisite: MUSC758. Restriction: Permission of ARHU-School of Music department.

Private music instruction in preparation for public performance.

Contact department for information to register for this course.

MUSP679 **Practicum**

(Perm req)

Credits: 1 Grading Method: Regular

Private individual instruction on a secondary instrument.

Contact department for information to register for this course.

MUSP719A **Interpretation and Repertoire; Piano**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719B **Interpretation and Repertoire; Voice**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719C **Interpretation and Repertoire; Violin**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719D **Interpretation and Repertoire; Viola**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719E **Interpretation and Repertoire; Cello**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719F **Interpretation and Repertoire; Bass**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719G **Interpretation and Repertoire; Flute**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719H **Interpretation and Repertoire; Oboe**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719I **Interpretation and Repertoire; Clarinet**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719J **Interpretation and Repertoire; Bassoon**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719K **Interpretation and Repertoire; Saxophone**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719L **Interpretation and Repertoire; Horn**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719M **Interpretation and Repertoire; Trumpet**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719N **Interpretation and Repertoire; Trombone**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719O **Interpretation and Repertoire; Tuba**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719P **Interpretation and Repertoire; Euphonium**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719Q **Interpretation and Repertoire; Percussion**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719R **Interpretation and Repertoire; Organ/Harpsichord**

Credits: 2 Grading Method: Regular, Audit

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719S **Interpretation and Repertoire; Guitar**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719T **Interpretation and Repertoire; Composition**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719U **Interpretation and Repertoire; Conducting**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719V **Interpretation and Repertoire**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719W **Interpretation and Repertoire; Electronic Composition**

(Perm req)

Credits: 2-4

Grading Method: Regular, Audit

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP719X **Interpretation and Repertoire**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Prerequisite: departmental audition, admission to doctoral program in the major series and permission of department chairman. Repeatable to a maximum of 12 credits.

Contact department for information to register for this course.

MUSP815A **Interpretation, Performance, and Pedagogy; Piano**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815B **Interpretation, Performance, and Pedagogy; Voice**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815C **Interpretation, Performance, and Pedagogy; Violin**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815D **Interpretation, Performance, and Pedagogy; Viola**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815E **Interpretation, Performance, and Pedagogy; Cello**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815F **Interpretation, Performance, and Pedagogy; Bass**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815G **Interpretation, Performance, and Pedagogy; Flute**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815H **Interpretation, Performance, and Pedagogy; Oboe**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815I **Interpretation, Performance, and Pedagogy; Clarinet**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815J **Interpretation, Performance, and Pedagogy; Bassoon**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815K **Interpretation, Performance, and Pedagogy; Saxophone**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815L **Interpretation, Performance, and Pedagogy; Horn**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815M **Interpretation, Performance, and Pedagogy; Trumpet**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815N **Interpretation, Performance, and Pedagogy; Trombone**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815O **Interpretation, Performance, and Pedagogy; Tuba**

(Perm req)

Credits: 4

Grading Method: Regular, Audit

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815P **Interpretation, Performance, and Pedagogy; Euphonium**

(Perm req)

Credits: 4 Grading Method: Regular

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815Q **Interpretation, Performance, and Pedagogy; Percussion**

(Perm req)

Credits: 4 Grading Method: Regular

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815R **Interpretation, Performance, and Pedagogy; Organ/Harpsichord**

Credits: 4 Grading Method: Regular, Audit

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815T **Interpretation, Performance, and Pedagogy; Composition**

(Perm req)

Credits: 4 Grading Method: Regular

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815U **Interpretation, Performance, and Pedagogy; Conducting**

(Perm req)

Credits: 4 Grading Method: Regular

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815V **Interpretation, Performance, and Pedagogy; Harp**

(Perm req)

Credits: 4 Grading Method: Regular

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP815W **Interpretation, Performance, and Pedagogy; Electronic Composition**

(Perm req)

Credits: 4 Grading Method: Regular

A seminar in pedagogy and the pedagogical literature for the doctoral performer, with advanced instruction at the instrument, covering appropriate compositions. Required of all candidates for the D.M.A. Degree in literature-performance. Prerequisite: doctoral standing in performance and permission of department chairman. Recital course.

Contact department for information to register for this course.

MUSP816A **Interpretation, Performance, and Pedagogy; Piano**

(Perm req)

Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816B **Interpretation, Performance, and Pedagogy; Voice**

(Perm req)

Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816C **Interpretation, Performance, and Pedagogy; Violin**

(Perm req) Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816D **Interpretation, Performance, and Pedagogy; Viola**

(Perm req) Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816E **Interpretation, Performance, and Pedagogy; Cello**

(Perm req) Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816F **Interpretation, Performance, and Pedagogy; Bass**

(Perm req) Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816G **Interpretation, Performance, and Pedagogy; Flute**

(Perm req) Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816H **Interpretation, Performance, and Pedagogy; Oboe**

(Perm req) Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816I **Interpretation, Performance, and Pedagogy; Clarinet**

(Perm req) Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816J **Interpretation, Performance, and Pedagogy; Bassoon**

(Perm req)

Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816K **Interpretation, Performance, and Pedagogy; Saxophone**

(Perm req)

Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816L **Interpretation, Performance, and Pedagogy; Horn**

(Perm req)

Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816M **Interpretation, Performance, and Pedagogy; Trumpet**

(Perm req)

Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816N **Interpretation, Performance, and Pedagogy; Trombone**

(Perm req)

Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816O **Interpretation, Performance, and Pedagogy; Tuba**

(Perm req)

Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816P **Interpretation, Performance, and Pedagogy; Euphonium**

(Perm req)

Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816Q **Interpretation, Performance, and Pedagogy; Percussion**

(Perm req)

Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816T **Interpretation, Performance, and Pedagogy; Composition**

(Perm req)

Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816U **Interpretation, Performance, and Pedagogy; Conducting**

(Perm req)

Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816V **Interpretation, Performance, and Pedagogy; Harp**

(Perm req)

Credits: 4 Grading Method: Regular, Audit

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP816W **Interpretation, Performance, and Pedagogy; Electronic Composition**

(Perm req)

Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 815 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817A **Interpretation, Performance, and Pedagogy; Piano**

(Perm req)

Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817B **Interpretation, Performance, and Pedagogy; Voice**

(Perm req)

Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817C **Interpretation, Performance, and Pedagogy; Violin**

(Perm req)

Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817D **Interpretation, Performance, and Pedagogy; Viola**

(Perm req)

Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817E **Interpretation, Performance, and Pedagogy; Cello**

(Perm req)

Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817F **Interpretation, Performance, and Pedagogy; Bass**

(Perm req)

Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817G **Interpretation, Performance, and Pedagogy; Flute**

(Perm req)

Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817H **Interpretation, Performance, and Pedagogy; Oboe**

(Perm req) Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817I **Interpretation, Performance, and Pedagogy; Clarinet**

(Perm req) Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817J **Interpretation, Performance, and Pedagogy; Bassoon**

(Perm req) Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817K **Interpretation, Performance, and Pedagogy; Saxophone**

(Perm req) Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817L **Interpretation, Performance, and Pedagogy; Horn**

(Perm req) Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817M **Interpretation, Performance, and Pedagogy; Trumpet**

(Perm req) Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817N **Interpretation, Performance, and Pedagogy; Trombone**

(Perm req) Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817O **Interpretation, Performance, and Pedagogy; Tuba**

(Perm req)

Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817P **Interpretation, Performance, and Pedagogy; Euphonium**

(Perm req)

Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817Q **Interpretation, Performance, and Pedagogy; Percussion**

(Perm req)

Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817T **Interpretation, Performance, and Pedagogy; Composition**

(Perm req)

Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817U **Interpretation, Performance, and Pedagogy; Conducting**

(Perm req)

Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817V **Interpretation, Performance, and Pedagogy; Harp**

(Perm req)

Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP817W **Interpretation, Performance, and Pedagogy; Electronic Composition**

(Perm req)

Credits: 4 Grading Method: Regular

Recital course. Prerequisite: MUSP 816 and permission of Department Chairman.

Contact department for information to register for this course.

MUSP898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

MUSP899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

NACS Neuroscience & Cognitive Science Spring 2022

NACS600 **Ethics in Scientific Research**

(Perm req)

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Must have completed a year of graduate study. Restriction: Permission of instructor; and must be in Neurosciences and Cognitive Sciences (Doctoral) program. Credit only granted for: NACS600, PSYC788B, or BIOL600.

Issues of scientific integrity with emphasis on investigators in the laboratory sciences, including mentoring, scientific record keeping, authorship and peer review, ownership of data, use of animals and humans in research, and conflict of interest.

0101	Rochelle Newman	Seats (Total: 20)
	M 2:30pm - 4:10pm	LEF 2166

NACS608 **Neuroscience and Cognitive Science Seminar**

Credits: 1 Grading Method: Regular

Special seminar topics in Neuroscience and Cognitive Science.

0101	Ricardo Araneda	Seats (Total: 20)
	F 10:15am - 11:15am	BRB 1103

NACS640 **Foundational Readings Seminar**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Permission of instructor; and must be in Neurosciences and Cognitive Sciences (Doctoral) program. Credit only granted for: NACS640 or NACS728R. Formerly: NACS728R.

An introduction to the breadth of research in Neuroscience and Cognitive Science. Faculty will present papers to provide historical context and introduction to important issues in the fields of their research.

0101	Rodolphe Gentili	Seats (Total: 12)
	M 11:00am - 1:00pm	PLS 1158

NACS642 **Cognitive Neuroscience**

Credits: 4 Grading Method: Regular, Audit

A study of the fundamental concepts and techniques of cognitive neuroscience. Hands-on experience with three critically different cognitive neuroscience methods: EEG, MEG, and fMRI.

0101	Ellen Lau	Seats (Total: 15)
	TuTh 10:00am - 12:00pm	COL 0211

NACS728D **Selected Topics in Neuroscience and Cognitive Science; Implementing Cognitive Computations**

Credits: 3 Grading Method: Regular, Audit

Graduate seminar on selected topics in contemporary neuroscience and Cognitive science. Extensive readings from the primary literature. Topics vary by semester.

Cross-listing with LING849D. Credit only granted for LING849D or NACS728D.

0101	Juan Uriagereka, Naomi Feldman	Seats (Total: 20)
	Th 2:00pm - 5:00pm	MMH 1108B

NACS728M **Selected Topics in Neuroscience and Cognitive Science; Grant Writing**

Credits: 2 Grading Method: Regular, Audit

Graduate seminar on selected topics in contemporary neuroscience and Cognitive science. Extensive readings from the primary literature. Topics vary by semester.

Cross-listed with BIOL709A. Credit granted for NACS728M or BIOL709A. Instruction in grant-writing skill, introduction to resources, discussions on how to make your grant competitive, and insight into th e review process. The goal will be to have each participant submit an NRSA.

0101	Joo Yun Jun	Seats (Total: 14)
	Th 1:00pm - 3:00pm	COL 0211

NACS728V **Selected Topics in Neuroscience and Cognitive Science; HEARING II, TRANSLATIONAL ISSUES**

Credits: 3 Grading Method: Regular, Audit

Graduate seminar on selected topics in contemporary neuroscience and Cognitive science. Extensive readings from the primary literature. Topics vary by semester.

Cross-listed with BIOL708V. Credit only granted for either BIOL708V or NACS728V.

0101	Catherine Carr	Seats (Total: 20)
	Tu 4:00pm - 7:00pm	BPS 1208

NACS798 **Master's Non-Thesis Research**

Credits: 1-3 Grading Method: Regular

Individual research course for NACS non-thesis MS degree

Contact department for information to register for this course.

NACS799 **Master's Thesis Research**

Credits: 1-3 Grading Method: Sat-Fail

Individualized research course for NACS thesis MS degree

Contact department for information to register for this course.

NACS898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

NACS899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Indivdual instruction course: contact department or instructor to obtain section number

Contact department for information to register for this course.

NAVY Navy Spring 2022

NAVY101 **Sea Power and Maritime Affairs**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS

Introduces the student to the key themes of naval and maritime history. Curriculum presents an analysis through lectures, reading, and student discussion of the relationship of sea power to American history. Classical concepts and contemporary employment of sea power are examined by viewing historic and current naval and maritime developments.

0101	Joseph McAndrews TuTh 8:00am - 9:15am	Seats (Total: 30) ARM 0120

NAVY108 **Naval Science Leadership Lab**

Credits: 1 | Grading Method: Regular, Pass-Fail

Introduces the student to a variety of instructional sessions and/or activities that will develop the leadership component of the Naval ROTC program. The Naval Science leadership lab may include, but not be limited to, close-order drill, physical fitness training, ceremonial functions, Department of the Navy policy, guest lecturers, general military training (GMT), Anti-Terrorism Force Protection (ATFP), traffic safety, nutrition, stress management, prevention of sexual harassment, and operations security.

0101	Michael O'Hara, John Howrey TuTh 7:00am - 7:50am	Seats (Total: 150) ESJ 1224

NAVY201 **Navigation**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Restriction: Permission of UGST-Navy ROTC. Additional information: Priority enrollment will be given to students enrolled in the University of Maryland NROTC program.

Introduces the student to a broad yet thorough education in basic surface ship navigation. Curriculum presents an overview of tools of the modern naval watch officer, and topics include celestial navigation, rules of the nautical road, piloting, practical chartwork, tides, instruments, publications, records, and electronic navigation systems. Instructional sessions and/or activities develop the maritime proficiency core competency of the Naval Reserve Officer Training Corps (NROTC) program.

0101	Barry Feinstein, Nathan Newman MW 8:00am - 9:15am	Seats (Total: 30) ARM 0120

NAVY301 **Naval Ship Systems II (Weapons)**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail

Recommended: MATH140, MATH141, and PHYS161. Restriction: Permission of UGST-Navy ROTC. Additional information: Priority enrollment will be given to students enrolled in the NROTC program.

Introduces the student to a comprehensive fundamental understanding of United States naval weaponry. Includes theory and employment of weapons systems, including the processes of detection, evaluation, threat analysis, weapon selection, delivery, guidance, and explosives. Radar and sonar systems and major weapon types, including capabilities and limitations. Facets of command, control, and communications as means of weapons system integration. Curriculum presents an in-depth review of surface, sub-surface, aviation, and Marine Corps weapons and platforms.

0101	Joseph McAndrews	Seats (Total: 35)
	MW 8:00am - 9:15am	MMH 1304

NAVY401 **Leadership and Ethics**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU, SCIS

Recommended: NAVY200. Restriction: Permission of UGST-Navy ROTC. Additional information: Priority enrollment will be given to students enrolled in the NROTC program.

Integrates an intellectual exploration of Western moral traditions and ethical philosophy with military leadership, core values, the Uniform Code of Military Justice, and Navy regulations. The course provides students with a basic understanding of major moral traditions including Relativism, Utilitarianism, Kantian Ethics, Natural Law Theory, Divine Command Theory, and Virtue Ethics.

0101	John Howrey	Seats (Total: 35)
	TuTh 8:00am - 9:15am	ESJ 1309

NAVY402 **Fundamentals of Maneuver Warfare**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Recommended: NAVY100, NAVY101, NAVY200, and NAVY108. Restriction: Permission of UGST-Navy ROTC. Additional information: Priority in enrollment will be given to students in the NROTC program.

A detailed study of the characteristics of modern warfare and their interactions with maneuver warfare doctrine, with a focus on the United States Marine Corps. Throughout the course, there is a strong focus on leadership, as the fundamental purpose of this course is to develop the skills, knowledge, leadership background and mentality necessary for a successful future leadership and service, whether in the military or the civilian sector.

0101	Michael O'Hara	Seats (Total: 35)
	TuTh 9:30am - 10:45am	ESJ 1309

NEUR Neuroscience Spring 2022

NEUR200 **Introduction to Neuroscience**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNS

Prerequisite: Minimum grade of C- in BSCI170 and BSCI171. Cross-listed with: PSYC202. Credit only granted for: PSYC309U, NEUR200, PSYC202 or PSYC301. Formerly: PSYC309U.

In an evolutionary sense, the job of the nervous system is to produce, control, and coordinate behaviors that help an animal survive and reproduce. Neuroscience is the study of how the nervous system does that. Provides a broad introduction to neuroscience, always keeping the behavioral consequences in view.

0101	David Yager TuTh 9:30am - 10:45am	Seats (Total: 150) BPS 1250
0201	Ana Navarro Cebrian TuTh 2:00pm - 3:15pm	Seats (Total: 75) PLS 1140

NEUR305 **Neural Systems and Circuits**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH120 or higher MATH course; and a minimum grade of C- in NEUR200 or BSCI353; or equivalent.

Overview of the fundamental principles underlying the systems and circuits of the human nervous system, with a focus on cognitive processes and how these systems interact. Students will engage in the analysis of case studies, apply their knowledge of the neural circuitry to explain everyday phenomena, hypothesize ways to further investigate the nervous system, and propose how knowledge of neural circuits can be used in human society and the resulting implications.

0101	Amanda Chicoli MWF 2:00pm - 2:50pm	Seats (Total: 60) ESJ 2309

NEUR306 **Cellular and Molecular Neuroscience**

Credits: 3 | Grading Method: Regular, Pass-Fail

Prerequisite: Earning C- or higher in NEUR200 or BSCI330. Corequisite: Must have completed or be concurrently enrolled in PHYS132 or equivalent course. Credit only granted for: NEUR306 or BSCI353.

Students will gain an appreciation of neuroscience as the nexus of chemistry, physics, and biology. Additionally, they will gain an understanding of how: both individual and networks of neurons function as variable electrical circuits; our nervous systems transduce signals from the outside world and sets-off molecular cascades; the behavior of a neuron can be changed and or remain the same in response to changing variables. Techniques used to study the nervous system at a cellular and molecular level will be discussed.

0101	Chan Lin MWF 9:00am - 9:50am	Seats (Total: 25) BPS 1243
0102	Daniel Butts TuTh 12:30pm - 1:45pm	Seats (Total: 25) ESJ 2204

NEUR329 **Instructional Assistance Practicum**

(Perm req)

Credits: 1-3 Grading Method: Regular

Students serve as instructional assistants in selected undergraduate neuroscience courses. Roles and responsibilities and pre/co-requisites are determined on a course- specific basis and approved by the Program Curriculum Committee.

Repeatable to 9 credits. Additional information: Course not acceptable toward major requirements in the Neuroscience. Students serve as instructional assistants in selected undergraduate neuroscience courses. Roles and responsibilities and pre/co-requisites are determined on a course- specific basis and approved by the Program Curriculum Committee.

Contact department for information to register for this course.

NEUR379 **Special Topics: Research in Neuroscience**

(Perm req)

Credits: 1-3 Grading Method: Regular

Research and/or integrated reading in a topic related to neuroscience, under the direction and close supervision of a member of the University of Maryland faculty.

Recommended: At least a 3.0 neuroscience track GPA and no records of academic misconduct. Restriction: Permission of Neuroscience Program. Repeatable to 12 credits. Research and/or integrated reading in a topic related to neuroscience, under the direction and close supervision of a member of the University of Maryland faculty.

Contact department for information to register for this course.

NEUR405 **Neuroscience Laboratory**

Credits: 3 Grading Method: Regular

Prerequisite: NEUR306 or BSCI353; and PHYS132. Recommended: NEUR305. Cross-listed with: BSCI455. Credit only granted for: PSYC401, NEUR405, BSCI455 or BSCI454.

Students will utilize neurophysiological techniques to examine fundamental principles of neurons and neural circuits. This course will reinforce content from prerequisite NEUR courses. Students will also strengthen skills in experimental design and scientific writing.

Students must pay a $40.00 lab fee.

0101	Hilary Bierman M 12:00pm - 1:50pm Tu 2:00pm - 6:00pm	Seats (Total: 20) ESJ 2212 BPS 0257	 Lab
0102	Hilary Bierman M 12:00pm - 1:50pm W 2:00pm - 6:00pm	Seats (Total: 20) ESJ 2212 BPS 0257	 Lab
0103	Hilary Bierman M 12:00pm - 1:50pm Th 2:00pm - 6:00pm	Seats (Total: 20) ESJ 2212 BPS 0257	 Lab

NEUR479 **Advanced Research in Neuroscience**

(Perm req)

Credits: 1-3 Grading Method: Regular

Research and/or integrated reading in neuroscience under the direction and close supervision of a faculty member.

Prerequisite: Complete at least 3 credits of NEUR379 (or equivalent) with the same faculty member as NEUR479 credit. Recommended: Minimum neuroscience track GPA of 3.0. Restriction: Permission of the Neuroscience Program. Repeatable to 12 credits. Research and/or integrated reading in neuroscience under the direction and close supervision of a faculty member.

Contact department for information to register for this course.

NFSC Nutrition and Food Science Spring 2022

The following courses may involve the use of animals. Students who are concerned about the use of animals in teaching have the responsibility to contact the instructor, prior to course enrollment, to determine whether animals are to be used in the course, whether class exercises involving animals are optional or required and what alternatives, if any, are available.

NFSC100 **Elements of Nutrition**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: LS General Education: DSNS

Fundamentals of human nutrition. Nutrient requirements related to changing individual and family needs.

0101	David Lei, Seong-Ho Lee, Hee-Jung Song, Shaik Rahaman MW 11:00am - 11:50am W 3:00pm - 3:50pm	Seats (Total: 25) TYD 0130 JMZ 1124	Discussion
0102	David Lei, Seong-Ho Lee, Hee-Jung Song, Shaik Rahaman MW 11:00am - 11:50am W 2:00pm - 2:50pm	Seats (Total: 25) TYD 0130 JMZ 0120	Discussion
0103	Shaik Rahaman, Hee-Jung Song, Seong-Ho Lee, David Lei MW 11:00am - 11:50am Tu 4:00pm - 4:50pm	Seats (Total: 25) TYD 0130 KEY 0120	Discussion
0104	David Lei, Seong-Ho Lee, Hee-Jung Song, Shaik Rahaman MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 25) TYD 0130 SYM 0209	Discussion
0105	Shaik Rahaman, Hee-Jung Song, Seong-Ho Lee, David Lei MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 25) TYD 0130 ESJ B0322	Discussion
0106	David Lei, Shaik Rahaman, Hee-Jung Song, Seong-Ho Lee MW 11:00am - 11:50am W 2:00pm - 2:50pm	Seats (Total: 25) TYD 0130 JMZ 1120	Discussion
0107	Seong-Ho Lee, David Lei, Hee-Jung Song, Shaik Rahaman MW 11:00am - 11:50am W 10:00am - 10:50am	Seats (Total: 25) TYD 0130 JMZ 0118	Discussion
0108	David Lei, Seong-Ho Lee, Hee-Jung Song, Shaik Rahaman MW 11:00am - 11:50am W 12:00pm - 12:50pm *Section 0108 is recommended for majors only.*	Seats (Total: 25) TYD 0130 JMZ 3120	Discussion

0109	Shaik Rahaman, Hee-Jung Song, Seong-Ho Lee, David Lei MW 11:00am - 11:50am W 9:00am - 9:50am	Seats (Total: 25) TYD 0130 EDU 3315	 Discussion
0110	Hee-Jung Song, Seong-Ho Lee, David Lei, Shaik Rahaman MW 11:00am - 11:50am W 1:00pm - 1:50pm	Seats (Total: 25) TYD 0130 JMZ 0118	 Discussion
0111	David Lei, Seong-Ho Lee, Hee-Jung Song, Shaik Rahaman MW 11:00am - 11:50am Tu 2:00pm - 2:50pm	Seats (Total: 25) TYD 0130 JMZ 1120	 Discussion
0112	Hee-Jung Song, Seong-Ho Lee, David Lei, Shaik Rahaman MW 11:00am - 11:50am Tu 2:00pm - 2:50pm	Seats (Total: 25) TYD 0130 JMZ 1117	 Discussion

NFSC220 **Diet: Is it a cause or a solution**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP, SCIS

If diet is a very straightforward topic; then why and how does this simple matter result in complicated health problems? Diet can provide a simple solution to numerous health issues. So, why do many people fail to follow this seemingly simple solution and still suffer from obesity and other diet-related diseases? Diet is a topic that most people know but few people understand. In addition, diet has become one of the most important lenses for looking at a variety of social, economic, and cultural issues. Since the concept of diet is continuum and has multifaceted aspects, we need to understand it in broad and multidisciplinary perspectives including social, cultural and economic aspects.

0101	Hee-Jung Song TuTh 3:30pm - 4:45pm	Seats (Total: 60) TYD 0102	

NFSC298 **Sports Nutrition Internship Practicum**

Credits: 1 | Grading Method: Sat-Fail

This internship allows students to gain hands on experience working in collegiate athletics. Students interact with an interdisciplinary team including registered dietitians, coaches, trainers, physicians and others to develop and enhance nutrition-related knowledge and skills. They also gain invaluable experience and exposure to the day-to-day duties of a collegiate sports dietitian. Students participate in a weekly 50-minute discussion that is held by two sports nutrition dietitians, and complete 9 hours per week hands on activities at Gossett Football Team House, Xfinity Center, and Varsity Team House.

Internship where individuals will be able to gain hands on experience working in collegiate athletics. Students will interact with an interdisciplinary team including registered dietitians, coaches, trainers, physicians and others to develop and enhance nutrition-related knowledge and skills. They will also gain invaluable experience and exposure to the day-to-day duties of a collegiate sports dietitian.

0101	Paula Karamihas, Colleen Carrion	Seats (Total: 20)
	Contact instructor or department for details.	
	Contact instructor or department for details.	

NFSC315 **Nutrition During the Life Cycle**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in NFSC100.

A study of how development throughout life, including prenatal development, pregnancy, lactation, adolescence and aging, alter nutrient requirements. Students will apply this knowledge to the dietary needs and food choices of these different groups.

0101	Melissa Rittenhouse	Seats (Total: 101)
	TuTh 2:00pm - 3:15pm	ONLINE

NFSC386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of AGNR-Nutrition and Food Science department. Restriction: Junior standing or higher. Formerly: FDSC386 and NUTR386.

Contact department for information to register for this course.

NFSC398 **Seminar**

Credits: 1 Grading Method: Regular, Pass-Fail

Presentation and discussion of current literature and research in food science.

FDSC majors only.

0101	Qin Wang	Seats (Total: 15)
	F 12:00pm - 12:50pm	SKN 0101

NFSC399 **Special Problems in Food Science**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Designed for advanced undergraduates. Specific problems in food science will be assigned.

Contact department for information to register for this course.

NFSC414 **Mechanics of Food Processing**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS121. Credit only granted for: ENBE414 or NFSC414. Formerly: ENBE414.

Applications in the processing and preservation of foods, of power transmission, hydraulics, electricity, thermodynamics, refrigeration, instruments and controls, materials handling and time and motion analysis.

0101	Rohan Tikekar	Seats (Total: 30)	
	MW 10:00am - 10:50am	JMZ 0208	
	F 1:00pm - 2:40pm	SQH 1117	Lab

NFSC430 **Food Microbiology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI223; or permission of instructor. Credit only granted for: ANSC430 or NFSC430. Formerly: FDSC430.

A study of microorganisms of major importance to the food industry with emphasis on food-borne outbreaks, public health significance, bioprocessing of foods, disease control, and the microbial spoilage of foods.

0101	Robert Buchanan	Seats (Total: 40)
	F 2:45pm - 5:30pm	TYD 2109

NFSC431 **Food Quality Control**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Definition and organization of the quality control function in the food industry; preparation of specifications; statistical methods for acceptance sampling; in-plant and processed product inspection. Instrumental and sensory methods for evaluating sensory quality, identity and wholesomeness and their integration into grades and standards of quality. Statistical Process Control (SPC).

0101	Abani Pradhan	Seats (Total: 20)	
	TuTh 11:00am - 11:50am F 9:00am - 11:30am	SKN 0101 MMH 3419	Lab

NFSC434 **Food Microbiology Laboratory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in NFSC430. Credit only granted for: NFSC434 or ANSC434. Formerly: FDSC434.

A study of techniques and procedures used in the microbiological examination of foods.

0101	Narjol Gonzalez-Escalona, Yi Chen	Seats (Total: 20)	
	TuTh 12:30pm - 4:00pm	MMH 3419	Lab

NFSC450 **Food and Nutrient Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BCHM461 and NFSC100. Formerly: NUTR450.

Methods and practices of the analysis of foods and nutrients. An overview of the principles and basic mechanisms used in many of the analytical procedures commonly used in food and nutrition research. Emphasis will be placed on hands-on development of skills necessary to complete each analytical procedure; and on the accurate and concise description of the methodology and results from their application and on the regulations governing food analysis for nutritional labeling.

0101	Diana Obanda	Seats (Total: 12)	
	W 1:00pm - 1:50pm W 2:00pm - 5:00pm	MMH 3112 MMH 3419	Lab
0102	Diana Obanda	Seats (Total: 12)	
	W 1:00pm - 1:50pm M 1:00pm - 4:00pm	MMH 3112 MMH 3419	Lab

NFSC456 **Medical Nutrition Therapy II**

(Perm req)

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum of C- in NFSC380 and NFSC440; and permission of AGNR-Nutrition and Food Science department.

Modifications of the normal adequate diet to meet human nutritional needs in acute and chronic diseases and metabolic disorders.

0101	Margaret Udahogora MW 1:00pm - 2:15pm M 2:30pm - 5:30pm	Seats (Total: 17) TYD 0101 JMZ 2125	 Lab
0102	Margaret Udahogora MW 1:00pm - 2:15pm W 2:30pm - 5:30pm	Seats (Total: 17) TYD 0101 JMZ 0205	 Lab

NFSC470 **Community Nutrition**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DSSP, DVCC

Prerequisite: Minimum of C- in NFSC315.

Perspectives underlying the practice of nutrition services in community settings. Assessment of needs, program planning and evaluation. Programs and strategies to meet nutrition needs outside the acute care setting, such as nutrition education and food assistance. National nutrition policy and federal initiatives in nutrition will be examined. Students will be required to travel to local community nutrition sites during the semester.

0101	Amy Schachtner-Appel MW 11:00am - 11:50am F 10:00am - 11:50am	Seats (Total: 40) TYD 1114 EDU 2119	 Discussion

NFSC490 **Special Problems in Nutrition**

(Perm req)

Credits: 2-3

Grading Method: Regular, Pass-Fail, Audit

General Education: DSSP

Prerequisite: NFSC440; and permission of AGNR-Nutrition and Food Science department.

Individually selected problems in the area of human nutrition.

Contact department for information to register for this course.

NFSC491 **Professional Issues and Opportunities in Dietetics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: CS

Prerequisite: Minimum of C- in NFSC350 and permission of Nutrition and Food Science Dietetics program. Corequisite: NFSC456. Restriction: Senior standing or higher; and must be in Nutrition and Food Science: Dietetics program.

A capstone course for dietetics majors. Students will integrate knowledge and theory of nutrition, food, management, psychology, and social behaviors necessary to support quality dietetic practice. Working in teams, students will participate in case studies, simulated situations and community projects. Individuals and groups will present cases as well as papers on published research.

0101	Amy Schachtner-Appel	Seats (Total: 30)
	MW 8:30am - 10:50am	JMZ 0122

NFSC498 **Selected Topics**

(Perm req)

Credits: 1-3 | Grading Method: Regular, Pass-Fail, Audit

Selected current aspects of food.

Contact department for information to register for this course.

NFSC498A **Selected Topics; Individual Study**

(Perm req)

Credits: 1-3 | Grading Method: Regular, Pass-Fail, Audit

Selected current aspects of food.

Contact department for information to register for this course.

NFSC498L **Selected Topics; Diet and Optimal Human Health**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Selected current aspects of food.

Prerequisite: NFSC100 and BSCI170, or permission by instructor.

0101	Seong-Ho Lee	Seats (Total: 20)
	Tu 2:00pm - 4:30pm	MMH 3112

NFSC633 **Food Polymer Science**

Credits: 3 | Grading Method: Regular

Prerequisite: Permission of instructor. Credit only granted for: NFSC633 or NFSC679P. Formerly: NFSC679P.

Food polymers including protein and carbohydrate from food, and their chemical, physical, and functional properties together with their structure-function relationship will be discussed. Food polymer applications in food and non-food areas will be covered. Principles and applications of instrumental methods for polymer characterization will be introduced. An emphasis on nanotechnology and its application to design and characterization food polymers will be included.

0101	Qin Wang	Seats (Total: 15)
	Th 1:00pm - 3:45pm	SKN 0101

NFSC660 Research Methods

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Must have completed one statistics course. Formerly: NUTR 660.

A study of appropriate research methodology and theories including experimental design. Each student is required to develop a specimen research proposal.

0101	David Lei	Seats (Total: 12)
	MW 2:00pm - 3:15pm	JMZ 1123

NFSC672 Advances in Food Processing

Credits: 1 Grading Method: Regular, Audit

This multi-institutional course provides a broad perspective of innovation as applied to food engineering and processing. The course will provide a general overview and case studies of current and emerging research areas in food and agricultural engineering and processing by different research groups in the nation. The course will demonstrate the efforts among food engineers and scientists in the nation to advance engineering knowledge and technologies for the purpose of improving food safety, quality and security, and enhance health benefits of food products through extensive research in focused areas.

0101	Rohan Tikekar, Abani Pradhan	Seats (Total: 10)
	F 2:00pm - 2:50pm	ONLINE

NFSC678A Selected Topics in Nutrition

Credits: 1-4 Grading Method: Regular, Audit

Individual or group study in an area of nutrition.

Contact department for information to register for this course.

NFSC678L **Selected Topics in Nutrition; Diet and Optimal Human Health**

Credits: 3 Grading Method: Regular, Audit

Individual or group study in an area of nutrition.

Prerequisite: NFSC100 and BSCI170, or permission by instructor.

0101	Seong-Ho Lee	Seats (Total: 5)	
	Tu 2:00pm - 4:30pm	MMH 3112	

NFSC679E **Selected Topics in Food Science; Mechanics of Food Processing**

Credits: 1-6 Grading Method: Regular, Sat-Fail

Individual or group study in an area of food science.

0101	Rohan Tikekar	Seats (Total: 30)	
	MW 10:00am - 10:50am	JMZ 0208	
	F 1:00pm - 2:40pm	SQH 1117	Lab

NFSC679M **Selected Topics in Food Science; Food Microbiology**

Credits: 3 Grading Method: Regular

Individual or group study in an area of food science.

0101	Robert Buchanan	Seats (Total: 5)
	F 2:45pm - 5:30pm	TYD 2109

NFSC688 **Seminar in Nutrition and Food Science**

Credits: 1-3 Grading Method: Sat-Fail, Audit

This is a seminar course presentedy by NFSC graduate students and invited speakers in the field of nutrition and food science.

0101	David Lei	Seats (Total: 25)
	W 12:00pm - 12:50pm	SKN 0101

NFSC699 **Problems in Nutrition and Food Science**

(Perm req)

Credits: 1-4 Grading Method: Regular, Audit

Credit according to time scheduled and magnitude of problem. An experimental program on a topic other than the student's thesis problem will be conducted. Four credits shall be the maximum allowed toward an advanced degree.

Contact department for information to register for this course.

NFSC799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

First and second semesters. Credit in proportion to work done and results accomplished. Investigation in some phases of foodservice administration which may form the basis of a thesis. results in the form of a thesis.

Contact department for information to register for this course.

NFSC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

First and second semesters. Oral reports on special topics or recently published research in nutrition. Distinguished scientists are invited as guest lecturers. A maximum of three credits allowed for the M.S.

Contact department for information to register for this course.

NFSC899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

NIAP National Institute of Aeronautics - Va Tech Spring 2022

NIAP788A **Special Topics in National Institue of Aerospace Engineering; Applied Numerical Method**

Credits: 1-3 Grading Method: Regular, Audit

TV01	Instructor: TBA	Seats (Total: 5)
	Contact instructor or department for details.	

NIAP788B **Special Topics in National Institue of Aerospace Engineering; Applied Linear Controls**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Contact department for information to register for this course.

NIAV National Institute of Aeronautics - Univ of VA — Spring 2022

NIAV788A **Advanced Topics; Engineering Design Optimization**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Contact department for information to register for this course.

NIAV788B **Advanced Topics; Multibody Mechanical Systems**

Credits: 3 Grading Method: Regular, Audit

Contact department for information to register for this course.

NIAV788W **Advanced Topics; Statistics for Engineers and Scientists**

Credits: 3 Grading Method: Regular

TV01	Sung Lee	Seats (Total: 20)
	Contact instructor or department for details.	

PEER Health Center — Spring 2022

PEER318 **CARE Peer Advocacy**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Designed to train students to become Peer Advocates who are responsible for providing crisis and short-term support services for victims of sexual assault, relationship violence, stalking, sexual harassment and child abuse.Students will be meeting with clients and providing emotional support and resources (both on and off campus). During weekly classes, students will be trained in trauma-informed crisis intervention procedures that will not only help them assist clients during in- person sessions but will help them support clients via the crisis cell. Students will be expected to maintain the crisis cell (on a shared basis)throughout the semester as well as maintain 10 hours per week in the CARE office. In addition to maintaining the crisis cell and office hours, during the spring semester students will be tasked with working as a team in planning and executing a Take Back the Night event.

0101	Christina Jay	Seats (Total: 15)
	W 4:30pm - 6:00pm Class time/details on ELMs	JMZ 1120 ONLINE

PEER319 **CARE to Stop Violence Outreach Peer Program; Care Peer Outreach**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

A two semester, 6-credit course designed to train students in the knowledge, values and skills to build professional relationships and become leaders in community development related to the social justice issue of sexual misconduct with emphasis on the college campus environment.

0101	Grace Boudreau	Seats (Total: 15)
	MW 4:00pm - 4:50pm	JMZ 1226
	Class time/details on ELMs	ONLINE
	Contact department or instructor for details.	

PEER322 **Advanced Peer Education: Preventing Power-Based Violence**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

General Education: DSSP

Prerequisite: Students must complete an interview before enrolling in this course; and minimum grade of B- in PEER312. Restriction: Minimum cumulative GPA of 2.5; and permission of instructor. Credit only granted for: HLTH382 or PEER322. Formerly: HLTH382. Additional information: In addition to the weekly class lectures and experiential learning opportunities facilitating educational outreach on campus, advanced peer educators will meet weekly in groups. These group meetings will provide a space for the students to incorporate class content to enhance the design, development, and evaluation of a sexual assault prevention or awareness program for the University of Maryland campus community. Coordinators will meet with student groups to facilitate and supervise this process.

PEER 322 is a three-credit, interdisciplinary course building upon the sexual assault, relationship violence, stalking, bystander intervention, and wellness knowledge gained during PEER 312. Students will gain a fundamental understanding of program planning basics through a series of assignments where they theoretically plan their own prevention or awareness program for the University of Maryland campus community. Students who become a Peer Leader during year two may have the opportunity to implement this program on campus. This course also provides advanced training in the skills necessary to serve as an effective Peer Educator under the University Health Center. Peer Educators will continue to provide outreach and education to the campus community through various outreach events, workshops, and more.

0101	Laura Widener	Seats (Total: 15)
	M 4:00pm - 5:00pm	TWS 1313
	W 4:00pm - 6:00pm	TWS 1313

PERS Persian Spring 2022

PERS102 **Elementary Persian II**

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PERS101; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be native/fluent speaker of Persian.

Continuation of PERS101 with emphasis on the use of formal language, vocabulary building, and reading.

0101	Bahareh Jalehmahmoudi	Seats (Total: 15)	
	MTuWF 10:00am - 10:50am	HJP 2114	
	Th 10:00am - 10:50am	HJP 2114	Lab

PERS110 **Rumi Rocks!: Persian Poets as Best Sellers and Spiritual Guides in America**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: AMST110. Credit only granted for: AMST110 or PERS110.

Analyzes the poetry of the great Persian poets Rumi and Hafez (in translation) with a particular eye towards understanding their blockbuster popularity in the United States as "mystical guides" for individuals dissatisfied with traditional institutional religions.

0101	Fatemeh Keshavarz-Karamustafa, Marjan Moosavi	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	JMZ 2206

PERS202 **Intermediate Persian II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO

Prerequisite: PERS201; or Must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be native/fluent speaker of Persian.

Further development of speaking, writing, listening and cultural knowledge, with special focus on culture.

0101	Manizhe Galledari	Seats (Total: 15)	
	MWF 12:00pm - 12:50pm	HJP 2114	
	Tu 12:00pm - 12:50pm	HJP 2114	Lab

PERS251 **Modern Iran**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SH, D General Education: DSHS

Cross-listed with: HIST219X. Credit only granted for: PERS251 or HIST219X.

General sociopolitical introduction to modern Iran from establishment of the Qajar dynasty in the late 18th century to the present day. Taught in English.

Cross-listed with HIST219X. Credit granted for PERS251 or HIST219X.

0101	Ahmet Karamustafa	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	TLF 1103

PERS302 **Advanced Persian II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PERS301; or students who have taken courses with comparable content may contact the department. Restriction: Must not be native/fluent speaker of Persian.

Further development of speaking, reading, writing, listening and cultural knowledge, with special focus on reading, in a variety of literary genres.

This is a Big Ten Academic Alliance CourseShare course.

0101	Bahareh Jalehmahmoudi	Seats (Total: 10)
	MWF 1:00pm - 1:50pm	HJP 2114

PERS312 **Contemporary Iranian Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PERS301; or students who have taken courses with comparable content may contact the department. Restriction: Must not be native/fluent speaker of Persian.

Study of the culture of contemporary Iran (post-evolution) with focus on the contemporary social, political, literary and artistic life in Iran. Taught in Persian.

0101	Manizhe Galledari	Seats (Total: 10)
	MWF 11:00am - 11:50am	HJP 2114

PERS386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ARHU-School of Languages, Literatures, and Cultures department.

Pre-professional experience in research, analysis and writing in a work setting. Project proposal approved by faculty and internship sponsor.

2950	Manizhe Galledari	Seats (Total: 5)
	Contact instructor or department for details.	

PERS398E **Special Topics in Persian Studies; Gender and Storytelling in Iranian Film and Theater**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topic to be announced when course is offered. Taught in Persian.

Human beings have told stories from the dawn of civilization. This course explores the power, place, and practice of storytelling in relation to the gender and gender-bending of the narrator, narrated, and reader. We will look at the way storytelling practice has been used for performing, reforming, and transforming gender in a variety of narratives (lyrical forms, memoirs, films, and performances). Cross-listed with CINE329P. Credit granted for PERS398E or CINE329P.

0101	Marjan Moosavi	Seats (Total: 25)
	MW 2:00pm - 3:15pm	JMZ 1122

PERS399 **Directed Study in Persian**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Directed study with faculty supervision.

Contact department for information to register for this course.

PERS498A **Special Topics in Persian Studies; Advanced Literacy Skills in Persian**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topic and language to be announced when offered.

Taught in Persian.

0101	Manizhe Galledari	Seats (Total: 5)
	Tu 9:00am - 11:45am	HJP 3115

PERS498D **Special Topics in Persian Studies; Political, Economic, and Social Thought in Today's Iran**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topic and language to be announced when offered.

Taught in Persian.

0101	Ali Abasi	Seats (Total: 5)
	F 9:00am - 11:45am	HJP 3115

PERS498E **Special Topics in Persian Studies; Translation of Contemporary Persian Texts**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topic and language to be announced when offered.

Taught in Persian.

0101	Nahal Akbari-Saneh	Seats (Total: 5)
	M 9:00am - 11:45am	HJP 3115

PERS498G **Special Topics in Persian Studies; Masterpieces of Modern Persian Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topic and language to be announced when offered.

The genesis of Iran s first generation of Modern writers was one of the main consequences of Iran s Constitutional Revolution (1905-1907), and the effect of publication of numerous newspapers and journals. Being acquainted with modern literary techniques, modern approaches and attitudes in prose and poetry created a fertile ground for flourishing of the most notable writers and poets with social and political concernsin Iran. The Course will cast a light on some of the most renowned Persian contemporary writers and poets. The assessment of the works, careers andstyles of several writers and poets in modern Persian literature is the main objective of this class. Also, it aims to develop student's abilities to research and present oral and written works effectively andimprove their analytical skills and interactive capacities.

0101	Mohammad Bazargan	Seats (Total: 15)
	Th 3:30pm - 6:00pm	JMZ 1215

PERS498J **Special Topics in Persian Studies; Masterpieces of 20th Century Persian Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topic and language to be announced when offered.

This course will cast light on Persian literature in the period of transformation from the classical to the modern period in Iran before and after constitutional revolution (1905-1907). The formation of a constitutional monarchy and the emergence of a parliamentary political system, the arrival of the printing press and the growing popularity of journals and newspapers as well as increasing levels of translation of historical and literary texts from other languages were some of the mainfactors that led to the public awakening and development of Iran's first generation of modern poets and writers. This course focuses on the key figures and their works in different literary genres for the period from the 19th through the 20th centuries. Taught in Persian.

0101	Mohammad Bazargan	Seats (Total: 15)
	W 12:00pm - 2:30pm	JMZ 2207

PERS498P **Special Topics in Persian Studies; Performing Arts Of Iran**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topic and language to be announced when offered.

Through a multimedia study of Iranian performing and digital arts in their context, this course will allow students to read a variety of Persian texts about film, theater, and digital performances, and participate in class discussions, watch performances, engage in role-plays, and provide creative responses with the goal of developing superior level proficiency in Persian. Taught in Persian.

0101	Marjan Moosavi	Seats (Total: 5)
	Th 9:00am - 11:45am	HJP 3115

PERS498W **Special Topics in Persian Studies; The Islamicate World 2.0: Studying Islamic Cultures through Computational Textual Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topic and language to be announced when offered.

Cross-listed with HIST429G and SLLC499I. Credit granted for PERS498W, HIST429G, or SLLC499I. An introduction to the use of computational methods for the study of Islamic cultures and societies.

0101	Jonathan Allen	Seats (Total: 15)
	Th 12:30pm - 3:00pm	JMZ 1103

PHIL Philosophy Spring 2022

PHIL100 **Introduction to Philosophy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO General Education: DSHU

An introduction to the literature, problems, and methods of philosophy either through a study of some of the main figures in philosophic thought or through an examination of some of the central and recurring problems of philosophy.

0101	Casey Enos MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 25) ASY 2203 SQH 1123	 Discussion
0102	Casey Enos MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 25) ASY 2203 SQH 1123	 Discussion
0103	Casey Enos MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 25) ASY 2203 ASY 3215	 Discussion
0104	Casey Enos MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 25) ASY 2203 ASY 3203	 Discussion
0105	Casey Enos MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 25) ASY 2203 ASY 3203	 Discussion
0106	Casey Enos MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 25) ASY 2203 KNI 1103	 Discussion

PHIL140 **Contemporary Moral Issues**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO | General Education: DSHU

The uses of philosophical analysis in thinking clearly about such widely debated moral issues as abortion, euthanasia, homosexuality, pornography, reverse discrimination, the death penalty, business ethics, sexual equality, and economic justice.

0101	Andrew Fyfe MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) SHM 2102 HBK 0105	 Discussion

0102	Andrew Fyfe MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 25) SHM 2102 HBK 0105	Discussion
0103	Andrew Fyfe MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 25) SHM 2102 KNI 1105	Discussion
0104	Andrew Fyfe MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) SHM 2102 HBK 0103	Discussion
0105	Andrew Fyfe MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 25) SHM 2102 TYD 1108	Discussion
0106	Andrew Fyfe MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 25) SHM 2102 TWS 1320	Discussion

PHIL170 **Introduction to Symbolic Logic**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: MS | General Education: FSAR

This course will introduce the basic concepts and techniques of modern symbolic logic, with an emphasis on developing skills in two areas: first, translating between ordinary language and logical notation; second, establishing the validity or invalidity of arguments using the methods of truth tables, deductions, and countermodels. Although the subject of symbolic logic was developed by mathematicians and philosophers for their own special purposes (which we will discuss), logical concepts and techniques have found applications in a variety of disciplines, including computer science, economics, law, linguistics, and psychology. We may also consider some of these applications.

0101	Michael McCourt MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 25) ARM 0131 SQH 1117	Discussion
0102	Michael McCourt MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 25) ARM 0131 VMH 1207	Discussion

0103	Michael McCourt MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 25) ARM 0131 VMH 1207	Discussion
0104	Michael McCourt MW 11:00am - 11:50am Th 9:00am - 9:50am	Seats (Total: 25) ARM 0131 HBK 1112	Discussion
0105	Michael McCourt MW 11:00am - 11:50am Th 10:00am - 10:50am	Seats (Total: 25) ARM 0131 HBK 1112	Discussion
0106	Michael McCourt MW 11:00am - 11:50am Th 12:00pm - 12:50pm	Seats (Total: 25) ARM 0131 SQH 1121	Discussion
0107	Michael McCourt MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 25) ARM 0131 SQH 1117	Discussion
0108	Michael McCourt MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 25) ARM 0131 VMH 1207	Discussion
0109	Michael McCourt MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 25) ARM 0131 VMH 1207	Discussion

PHIL203 **The Rights and Wrongs of Killing People**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, SCIS

Credit only granted for: PHIL209J or PHIL203. Formerly: PHIL209J.

Virtually everyone thinks it's permissible to kill people only in special circumstances. But why is killing usually wrong? Is it ever acceptable to kill an innocent human being intentionally? This course raises these and related questions and examines cases such as terrorism, suicide, abortion, euthanasia, the death penalty, war. Except for a brief discussion of animals, all the controversies considered deal with killing and causing death to human beings.

0101	Daniel Blair MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 25) ASY 2203 SQH 1105	Discussion
0102	Daniel Blair MW 2:00pm - 2:50pm F 12:00pm - 12:50pm	Seats (Total: 25) ASY 2203 EDU 1315	Discussion
0103	Daniel Blair MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 25) ASY 2203 SQH 2120	Discussion
0104	Daniel Blair MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 25) ASY 2203 SQH 1101	Discussion
0105	Daniel Blair MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 25) ASY 2203 SQH 1103	Discussion
0106	Daniel Blair MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 25) ASY 2203 KEY 0100	Discussion

PHIL205 **Are Sports Ethical?**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, SCIS

Credit only granted for: PHIL205, PHIL209G, or HONR229E. Formerly: HONR229E.

Things happen routinely in sports that would seem morally unacceptable in other context: violence between the participants, attempts to trick the referee, fans hoping that some players would do embarrassingly badly, spectators feeling anger towards whole nations. Nonetheless, all of this may seem reasonable and even justifiable within a sporting context. This course will investigate the ethical structure of sports, and what it tells us about the ethics of everyday life. Philosophy will provide the primary disciplinary context, but we will also think about sociological, legal and anthropological perspectives on sports. Issues will include the nature of sportsmanship, what types of violence in sports are acceptable, drug use in sports, what it means to be a fan (for example, asking why loyalty to your team is valuable) and how our view of sports interacts with our view of nations. By the end of the course you should have gained familiarity with a variety of ethical concepts and a sensitivity to the ethical issues in sports. You should also find that by thinking about morality in the context of sports, you will look at larger ethical issues in new ways.

0101	Harjit Bhogal MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 25) SHM 2102 SQH 1101	Discussion
0102	Harjit Bhogal MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 25) SHM 2102 SQH 1101	Discussion
0103	Harjit Bhogal MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 25) SHM 2102 ASY 3211	Discussion

PHIL209D **AI & ETHICS**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Credit only granted for: PHIL209D or PHIL211.

An introduction to a major subfield of contemporary Philosophy, namely applied ethics, and the experience of using some major tools in the practice of philosophy more generally, namely, the construction and formal evaluation of arguments, conceptual analysis, the use of thought experiments, and clear, direct and persuasive writing. Learning how to execute the latter will involve an intense iterative process. The substantive focus of the course will be the ethical evaluation of Artificial Intelligence (AI) in some of its current and potentially future incarnations. We'll examine algorithmic opacity, algorithmic bias and decision-making, autonomous weapons systems, human-robot interaction, and artificial moral agents, in order to uncover what, if any, ethical issues they give rise to.

0101	Susan Dwyer TuTh 11:00am - 12:15pm	Seats (Total: 25) TLF 1101	

PHIL209X **Philosophical Issues; Philosophy of Language and Logic**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

An examination of selected philosophical issues of general interest.

Contact department for information to register for this course.

PHIL220 **Bioethics: Regulating Right and Wrong**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DSSP

Credit only granted for: PHIL209A or PHIL220. Formerly: PHIL209A.

Bioethicists formulate ethical guidelines. They answer questions such as: When life-saving health resources are scarce, who should get them? Should we increase supply of one such resource, kidneys, by buying them from living "donors"? If drug trials in developing countries benefit patients who consent to participate, are the trials ethical, even if the same research would be forbidden in the US? If a sick person aims to hasten her death, how, if at all, might her doctor permissibly help her? In this course, students construct and defend ethical rules in four domains: research ethics, allocation of scarce resources, markets in organs, and physician-assisted dying.

0101	Christopher Masciari MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 25) TYD 0117 WDS 0104	Discussion
0102	Christopher Masciari MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 25) TYD 0117 WDS 0104	Discussion
0103	Christopher Masciari MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 25) TYD 0117 ASY 3203	Discussion

PHIL245 **Political and Social Philosophy I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO | General Education: DSHU

A critical examination of such classical political theories as those of Plato, Hobbes, Locke, Rousseau, Mill, Marx, and such contemporary theories as those of Hayek, Rawls, and recent Marxist thinkers.

0101	Antong Liu MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) ASY 1213 JMZ 1215	Discussion
0102	Antong Liu MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 25) ASY 1213 KNI 1206	Discussion
0103	Antong Liu MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 25) ASY 1213 ASY 3207	Discussion

PHIL261 **Philosophy of the Environment**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: IE | General Education: DSHU

Credit only granted for: HONR218F or PHIL261. Formerly: HONR218F.

An evaluation of different kinds of arguments for the claim that the natural environment should be preserved. Perspectives cut across the disciplines of philosophy (environmental ethics and philosophies of nature); economics (cost-benefit analysis); and biology (evolution, ecology, environmental studies).

0101	Leisa Schwab MW 9:00am - 9:50am F 10:00am - 10:50am	Seats (Total: 22) ASY 1213 EDU 2101	Discussion
0102	Leisa Schwab MW 9:00am - 9:50am F 12:00pm - 12:50pm	Seats (Total: 22) ASY 1213 EDU 2102	Discussion
0103	Leisa Schwab MW 9:00am - 9:50am F 1:00pm - 1:50pm	Seats (Total: 22) ASY 1213 EDU 2101	Discussion

PHIL269M **Special Topics in Study Abroad II; Moral Philosophy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PHIL269Y **Special Topics in Study Abroad II; Truth and Reality**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PHIL269Z **Special Topics in Study Abroad II; Introduction to Continental Philosophy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PHIL271 **Symbolic Logic**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSAR

Recommended: PHIL170.

This course provides students with a thorough treatment of the basic concepts and techniques of modern symbolic logic, through classical first-order logic with identity. We will concentrate on the construction of natural deduction proofs and on the evaluation of logical statements in semantic models. Along the way, we will study some of the concepts from set theory (sets, functions, relations) used in the definition of semantic models for logical systems. We may also introduce some alternative, or non-classical logics. Although the subject of symbolic logic was developed by mathematicians and philosophers for their own special purposes (which we will discuss), logical concepts and techniques have found applications in a variety of disciplines, including computer science, economics, law, linguistics, and psychology. We may also consider some of these applications.

0101	Casey Enos TuTh 3:30pm - 4:45pm	Seats (Total: 25) TWS 1313	

PHIL282 **Free Will & Determinism**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO | General Education: DSHU

A study of the main positions and arguments in the free will debate in contemporary analytic philosophy.

0101	Allen Stairs M 12:00pm - 12:50pm Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 25) ONLINE ONLINE JMZ 0122	 Discussion
0102	Allen Stairs M 12:00pm - 12:50pm Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 25) ONLINE ONLINE TWS 1321	 Discussion
0103	Allen Stairs M 12:00pm - 12:50pm Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 25) ONLINE ONLINE JMZ 2207	 Discussion

PHIL308U **Studies in Contemporary Philosophy; The Philosophy and Practice of Yoga**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Problems, issues, and points of view of current interest in philosophy.

0101	Susan Dwyer Tu 2:00pm - 3:15pm Th 2:00pm - 3:15pm	Seats (Total: 25) CCC 1105 PKT 2102	

PHIL318B **Studies in Epistemology/Metaphysics; The Wisdom of Crowds**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Problems, issues, and points of view in epistemology or metaphysics.

An investigation of how the ability to obtain knowledge can be enhanced or distorted by different kinds of social structures. We will look at classic work about how different kinds of interactions within groups create new ways of knowing or being deceived. We'll also look at recent work on the nature of disagreement, polarization, and the use of networks in scientific research.

0101	Daniel Blair TuTh 11:00am - 12:15pm	Seats (Total: 30) HBK 1108	

PHIL320 **Knowing Oneself and Knowing the World: Early Modern Philosophy from Descartes to Kant**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Prerequisite: 6 credits in PHIL courses; or permission of instructor.

A study of major philosophical issues of the 16th, 17th, and 18th centuries through an examination of such philosophers as Descartes, Spinoza, Leibniz, Cavendish, Locke, Berkeley, Hume and Kant

0101	Charles Manekin W 3:00pm - 3:50pm Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 25) TWS 0320 ONLINE EDU 3233	Discussion
0102	Charles Manekin W 3:00pm - 3:50pm Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 25) TWS 0320 ONLINE ASY 3207	Discussion
0103	Charles Manekin W 3:00pm - 3:50pm Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 25) TWS 0320 ONLINE JMZ 2206	Discussion

PHIL360 **Philosophy of Language**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: LING311; or 2 courses in PHIL and (PHIL170 or PHIL370); or permission of ARHU-Philosophy department. Cross-listed with: LING350. Credit only granted for: LING350 or PHIL360.

The nature and function of language and other forms of symbolism from a philosophical perspective.

0101	Alexander Williams	Seats (Total: 40)
	TuTh 9:30am - 10:45am	HBK 0103

PHIL364 **Metaphysics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 6 credits in PHIL courses. Formerly: PHIL464.

The study of some central metaphysical concepts and issues including the nature and validity of metaphysical thinking, universals, identity, substance, time, God, and reality.

0101	Shen Pan	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	SYM 0215

PHIL366 **Philosophy of Mind**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 6 credits in PHIL courses.

An introduction to core issues in the philosophy of mind, focusing especially on the basic metaphysical question of dualism versus physicalism.

0101	Aida Roige Mas	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	TWS 1320

PHIL386 **Experiential Learning**

(Perm req)

Credits: 6 Grading Method: Regular, Pass-Fail

Restriction: Permission of ARHU-Philosophy department; and junior standing or higher.

Consult Director of Undergraduate Studies: C. Manekin. Prerequisites: 12 credit hours of philosophy and 3.0 GPA. Carries no credit toward philosophy major.

Contact department for information to register for this course.

PHIL409X **Advanced Studies in Contemporary Philosophy; Quantum Mechanics and Metaphysics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An in-depth study of a contemporary philosophical problem or issue. Topics will vary, but the course will encourage students to grapple with the primary literature in order to generate sustained critical analyses or proposed resolutions of issues under active consideration in contemporary philosophy.

Quantum mechanics raises a variety of metaphysical issues -- about causation, metaphysical grounding, determinateness, realism, logic, and various other matters. Fortunately, exploring these connections does not require extensive knowledge of quantum physics. This course will be a self-contained introduction to issues at the intersection of quantum mechanics and metaphysics. While the course presupposes a comfort with moderately mathematical/formal presentations and a taste for abstraction, there are no specific course prerequisites. Students should have at least two courses in philosophy or permission of the instructor.

0101	Allen Stairs	Seats (Total: 25)
	Tu 2:00pm - 4:30pm	ONLINE

PHIL414 **The Philosophy of Aristotle**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 6 credits in PHIL courses.

A critical study of selected portions of Aristotle's writings.

0101	Michael McCourt	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	MTH 0305

Cross-listed with PHPE408C. Credit only granted for PHIL428C or PHPE408C. Confucius (551-479 BC) and Socrates (c. 470-399 BC) are similar in many ways: They both devoted their lives to thinking about ethics and politics, had numerous disciples and followers, but left us with no writings unquestionably of their own. Despite these similarities, the East Asian Confucian tradition and the Western Socratic tradition turn out to be vastly different from each other regarding their views of human, society, and politics. Understanding the similarities and differences between Confucius and Socrates 2500 years ago helps us understand those between East and West today. To this purpose, we read and discuss the ethical, social, and political thoughts that their respective disciples have attributed to them as well as the thoughts of their opponents.

PHIL428C **Topics in the History of Philosophy; Confucius and Socrates**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

0101	Antong Liu	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	TLF 1101

PHIL446 **Law, Morality, and War**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An exploration of fundamental moral and legal issues concerning war.

0101	Antong Liu	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	BPS 1228

PHIL469Y **Study Abroad Special Topics IV; Philosophy of Science II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PHIL470 **Logical Theory II: Incompleteness and Undecidability**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: PHIL370; or permission of instructor.

Introduces the formal theory of computation, and then presents the the central limitative results of modern first-order logic: Church's undecidability theorem and Godel's first and second incompleteness theorems. The primary focus of the course is a thorough technical study of these fundamental results, but we will also discuss some of the philosophical issues they raise. Further topics may include second-order logic.

0101	Eric Pacuit	Seats (Total: 24)
	TuTh 12:30pm - 1:45pm	MMH 1304

PHIL498F **Topical Investigations; Topical Investigation**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite:Two courses in philosophy or permission of the department.

Contact department for information to register for this course.

PHIL498G **Topical Investigations; Topical Investigation**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite:Two courses in philosophy or permission of the department.

Contact department for information to register for this course.

PHIL498Z **Topical Investigations; Realism and Idealism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

PHIL688X **Selected Problems in Philosophy; Incompleteness and Undecidability**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Eric Pacuit	Seats (Total: 6)
	TuTh 12:30pm - 1:45pm	MMH 1304

PHIL788G **Research in Philosophy; Research in Philosophy**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Contact department for information to register for this course.

PHIL788I **Research in Philosophy; Research in Philosophy**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Contact department for information to register for this course.

PHIL799 **Master's Thesis Research; Masters Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

PHIL808L **Seminar in the Problems of Philosophy; Recent Work in Philosophy of Language**

Credits: 3 Grading Method: Regular, Audit

0101	Paolo Santorio	Seats (Total: 15)
	Th 2:00pm - 4:30pm	SKN 1116

PHIL848 **Seminar in Ethics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Dan Moller Th 4:30pm - 7:00pm	Seats (Total: 15) SKN 1116

PHIL868 **Seminar in Metaphysics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Harjit Bhogal W 2:30pm - 5:00pm	Seats (Total: 15) SKN 1116

PHIL888 **Professional Mentoring for Doctoral Students**

Credits: 1-3 Grading Method: Sat-Fail

Work with a faculty advisor on various aspects of professional development.

Contact department for information to register for this course.

PHIL889 **Pedagogical Mentoring for Doctoral Students**

(Perm req)

Credits: 1-3 Grading Method: Sat-Fail

Work with a faculty advisor to develop and improve pedagogical skills.

Contact department for information to register for this course.

PHIL898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

PHIL899 **Doctoral Dissertation Research; Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

PHPE Philosophy, Politics, and Economics Spring 2022

PHPE308B **Special Topics in Philosophy, Politics, and Economics; The Wisdom of Crowds**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

A sustained investigation of a topic at the intersection of philosophy, politics and economics.

0101	Daniel Blair	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	HBK 1108

PHPE350 **Careers in Impact**

Credits: 3

Grading Method: Regular, Pass-Fail

The impact ecosystem is vast and complex and consists of public, private, and nonprofit sectors engaged in shaping the world around them. Each sector within this ecosystem has its own theory of change and plays a specific role in the broader impact space. As you seek to become a purposeful professional, it is essential to develop a deeper understanding of this ecosystem, the different levers of influence within it, and the intra-relationship between the sectors. This course introduces you to both the impact landscape and working professionals. Through lectures, guest visits, and hands-on projects you come away better equipped to find your place within the impact ecosystem.

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0101	Sarah Wolek	Seats (Total: 40)
	M 5:00pm - 7:30pm	ONLINE

PHPE400 **Individual and Group Decision-Making**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Foundational issues that arise within the theories of rational choice that underlie the treatments of decision-making found in economics, politics, and the other social sciences. The course is focused on individual decisions (rational choice theory), strategic decisions (game theory) and group decisions (social choice theory). In addition to presenting the formal models of decision making, we also discuss to what extent these mathematical theories explain social interactions. An important aspect of the course is to introduce students to the ways in which economic analysis has been applied to issues in social and political philosophy. Readings will be drawn from the literature in economics, psychology, statistics and political science, as well as philosophy.

0101	Eric Pacuit	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	ASY 3215

PHPE401 **Social Philosophy and Political Economy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Examines capitalism and socialism as differing modes of economic production through several different theoretical lenses. We begin by examining capitalism and socialism as they developed historically, by looking primarily at the work of Adam Smith and Karl Marx. Then, we turn our attention to one of the most important debates in 20th century economics: to what extent rational economic calculation is possible in a socialist commonwealth. After this we turn our attention to how capitalist and socialist modes of production functioned in practice. We end by turning our attention to the ethics of capitalism and socialism: which mode of economic production is most just?

Credit only granted for PHPE401 or GVPT449E.

0101	Brian Kogelmann	Seats (Total: 30)
	TuTh 9:30am - 10:45am	TYD 2111

PHPE402 **Senior Capstone in Philosophy, Politics, and Economics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Philosophy, Politics, and Economics major; and must have senior standing.

Senior capstone course for the Philosophy, Politics, and Economics major. The exact content of the course will be determined by the instructor who teaches it. The purpose of the course is to pursue sustained inquiry on a narrow philosophical topic, using the tools and methods from economics and political science to help analyze the topic. The course ends with a substantial research paper, where the student should demonstrate an ability to use the tools of philosophy, political science, and economics in his or her analysis.

0101	Dan Moller	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	TYD 1132

PHPE408A **Advanced Topics in Philosophy, Politics, and Economics; The Philosophy of Aristotle**

Credits: 3 Grading Method: Regular, Pass-Fail

A sustained investigation of a topic at the intersection of philosophy, politics and economics.

0101	Michael McCourt	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	MTH 0305

PHPE408C **Advanced Topics in Philosophy, Politics, and Economics**

Credits: 3 Grading Method: Regular, Pass-Fail

A sustained investigation of a topic at the intersection of philosophy, politics and economics.

Cross-listed with PHIL428C. Credit only granted for PHIL428C or PHPE408C. Confucius (551-479 BC) and Socrates (c. 470-399 BC) are similar in many ways: They both devoted their lives to thinking about ethics and politics, had numerous disciples and followers, but left us with no writings unquestionably of their own. Despite these similarities, the East Asian Confucian tradition and the Western Socratic tradition turn out to be vastly different from each other regarding their views of human, society, and politics. Understanding the similarities and differences between Confucius and Socrates 2500 years ago helps us understand those between East and West today. To this purpose, we read and discuss the ethical, social, and political thoughts that their respective disciples have attributed to them as well as the thoughts of their opponents.

0101	Antong Liu	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	TLF 1101

PHSC Public Health Science Spring 2022

PHSC388A **Special Topics in Public Health Science; Kidney Disease**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Will differ by specific course offering.

An exploration of the foundations and epidemiology of renal (kidney) disease and how it affects local and global communities from a physiological and public health standpoint. The functions of the kidneys in the body are explored as well as how a renal disease states can quickly progress and impact quality of life. Discussions include: kidney function; renal disease initiation and progression; impact of disease on quality of life; preventative care; long-term treatment options for renal disease; influences of implicit bias in medically underserved communities disproportionately affected by kidney disease; and impacts of kidney disease from a global health perspective.

0101	Kendall Bustad	Seats (Total: 30)
	M 11:00am - 11:50am	ESJ 1309

PHSC389 **Independent Research Study in Public Health Science**

(Perm req)

Credits: 1-6

Grading Method: Regular, Pass-Fail

This independent research-based experience will provide the opportunity for students to work with individual research mentors in the area of Public Health Science. Students must identify a mentor prior to obtaining departmental permission.

0101	Nancy Smith Contact instructor or department for details. *Restricted to students in Public Health Science (12140) major at College Park only.*	Seats (Total: 30)
ESG1	Nancy Smith Contact instructor or department for details. *Restricted to Shady Grove students in the Public Health Science major.*	Seats (Total: 15)

PHSC399 **Public Health Science Internship**

(Perm req)

Credits: 1-6

Grading Method: Regular, Pass-Fail

The Public Health Science internship will enable students to gain practical experience under conditions conducive to academic, research and professional development. The internship is a time-limited, supervised period of public health professional experience carried out in a related professional organization or research setting.

0101	Nancy Smith Contact instructor or department for details. *Restricted to students in Public Health Science (12140) major atajor College Park only.*	Seats (Total: 30)
ESG1	Nancy Smith Contact instructor or department for details. *Restricted to Shady Grove students in the Public Health Science major.*	Seats (Total: 20)

PHSC410 **Public Health Program Planning and Evaluation**

Credits: 3

Grading Method: Regular, Pass-Fail

Restriction: Must be in Public Health Science program; and junior standing or higher. Credit only granted for: PHSC410 or SPHL410. Formerly: SPHL410.

Students will become familiar with the dynamics of public health program planning, and the basic process of identifying unmet needs. They will be able to identify different types of program evaluation, including needs assessment, formative research, process evaluation, impact assessment, and cost analysis.

ESG1	Nancy Smith Th 11:00am - 1:30pm	Seats (Total: 35) BLD3 4215	
	Restricted to Shady Grove students in the Public Health Science major.		

PHSC415 **Essentials of Public Health Biology: The Cell, The Individual, and Disease**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in BSCI202. Recommended: BSCI223. Restriction: Must be in Public Health Science program; and junior standing or higher. Credit only granted for: PHSC415, SPHL415 or SPHL498J. Formerly: SPHL415 and SPHL498J.

Presents the basic scientific and biomedical concepts of modern public health problems and explores in depth mechanisms and models of the major categories of disease. The biologic principles presented are foundations to public health disease prevention, control, or management programs.

0101	Jessica O'Hara MW 1:00pm - 1:50pm W 2:00pm - 2:50pm	Seats (Total: 36) SPH 1312 ATL 1114	 Discussion
	Restricted to College Park students in the Public Health Science major (code 12140).		
0102	Jessica O'Hara MW 1:00pm - 1:50pm Th 11:00am - 11:50am	Seats (Total: 36) SPH 1312 ATL 1114	 Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0103	Jessica O'Hara MW 1:00pm - 1:50pm Th 12:30pm - 1:20pm	Seats (Total: 36) SPH 1312 ATL 1114	 Discussion
	Restricted to College Park Students in the Public Health Science major (code 12140).		
0104	Jessica O'Hara MW 1:00pm - 1:50pm Th 2:00pm - 2:50pm	Seats (Total: 36) SPH 1312 ATL 1114	 Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0105	Jessica O'Hara MW 1:00pm - 1:50pm Th 3:00pm - 3:50pm	Seats (Total: 36) SPH 1312 ATL 1114	 Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		

PHSC420 **Vaccines and Immunology**

Credits: 3 | Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in BSCI223. Recommended: CHEM231. Restriction: Must have earned a minimum of 60 credits. And must be in Public Health Science program; or permission of instructor.

An exploration of immunology and vaccines through a public health lens. We will examine the cells, systems, and molecules that comprise the human immune system and defend your body against disease. In addition, we will discuss the strategies used during vaccine development including the history and future of vaccination and how increased understanding of the immune system has allowed scientists to improve and refine the process. Finally we will examine the current social and political situation surrounding vaccination and the roles and responsibility of public health practitioners.

0101	Jennifer German	Seats (Total: 35)
	TuTh 9:30am - 10:45am	ESJ B0320

PHSC430 **Public Health in the City: Perspectives on Health in the Urban Environment**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, DVUP, SCIS

Prerequisite: Minimum grade of C- in BSCI202 and MIEH300. Restriction: Must be in Public Health Science program; and junior standing or higher. Credit only granted for: PHSC430 or SPHL498G. Formerly: SPHL498G.

Exposure to issues related to city habitation and the health of the public, including how the urban environment impacts the lives and health of city dwellers, including discussion of the social determinants of health. Students are encouraged to think about urban health and policy, and to question the current state of urban public health. Issues of race, class, and equality will be discussed throughout the course as they relate to each of these topics.

0101	Kendall Bustad	Seats (Total: 35)
	Class time/details on ELMs	ONLINE

PHSC497 **Public Health Science Capstone**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Prerequisite: Must have completed the professional writing requirement with a C- or higher; and minimum grade of C- in MIEH400. Restriction: Must have earned a minimum of 100 credits; and must be in Public Health Science program; and must be in the final semester of undergraduate study. Credit only granted for: SPHL498F or PHSC497. Formerly: SPHL498F.

The capstone course is the culminating experience for Public Health Science students and must be taken only in the final semester of study. The Public Health Science capstone course is designed to challenge students to integrate the five core areas of public health in investigating, researching and addressing public health issues. Throughout the semester, students will be required to evaluate, analyze and synthesize scholarly works as they research and propose solutions to a variety of public health issues. By the conclusion of this research based course, students will understand how the various public health perspectives can combine in addressing and informing public health practices.

0101	Kevin Glasz M 4:00pm - 6:30pm	Seats (Total: 22) SPH 0225
	Restricted to College Park students in the Public Health Science major (code 12140).	
0201	Kendall Bustad M 4:00pm - 6:30pm	Seats (Total: 22) PLS 1168
	Restricted to College Park students in the Public Health Science major (code 12140).	
0301	Daniel Marthey Tu 4:00pm - 6:30pm	Seats (Total: 22) ONLINE
	Restricted to College Park students in the Public Health Science major (code 12140).	
0401	Aysha Jawed Tu 6:00pm - 8:30pm	Seats (Total: 22) ONLINE
	Restricted to College Park students in the Public Health Science major (code 12140).	
0501	Stephen Roth W 4:00pm - 6:30pm	Seats (Total: 22) ATL 2416
	Restricted to College Park Students in the Public Health Science major (code 12140).	
0601	Carmen Booker W 6:00pm - 8:30pm	Seats (Total: 22) ONLINE
	Restricted to College Park students in the Public Health Science major (code 12140).	
0701	Paul Levy Th 6:00pm - 8:30pm	Seats (Total: 22) PLS 1158
	Restricted to College Park students in the Public Health Science major (code 12140).	
0801	Carmen Booker M 6:00pm - 8:30pm	Seats (Total: 22) ONLINE
	Restricted to College Park students in the Public Health Science major (code 12140).	

0901	Stephen Roth M 5:00pm - 7:30pm	Seats (Total: 22) ATL 2316
	Restricted to College Park students in the Public Health Science major (code 12140).	
1001	Elizabeth Bell Tu 3:00pm - 5:30pm	Seats (Total: 22) BPS 1232
	Restricted to College Park students in the Public Health Science major (code 12140).	
1101	Ashley Pantaleao Th 4:00pm - 6:30pm	Seats (Total: 22) ATL 0201
	Restricted to College Park students in the Public Health Science major (code 12140).	
1201	Stephen Roth Tu 6:00pm - 8:30pm	Seats (Total: 22) ATL 1114
	Restricted to College Park Students in the Public Health Science major (code 12140).	
ESG1	Adam Binkley M 5:30pm - 8:00pm	Seats (Total: 20) BLD4 3321
	Restricted to Shady Grove students in the Public Health Science major.	

PHYS Physics Spring 2022

PHYS106 **Light, Perception, Photography, and Visual Phenomena**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNL (if taken with PHYS107)

Intended for the general student, this course will cover topics in optics which require minimal use of mathematics. Principles of optics, lenses, cameras, lasers and holography, physics of the eye, color vision and various visual phenomena such as rainbows.

0101	Jordan Goodman MWF 2:00pm - 2:50pm	Seats (Total: 155) PHY 1410

PHYS107 **Light, Perception, Photography and Visual Phenomena Laboratory**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit

Optional laboratory to accompany PHYS106. Laboratory experiments include geometrical optics (lenses, cameras, eye), optical instruments (telescope, binoculars), photography, perception, color phenomena, and wave phenomena.

0101	Anwar Bhatti M 3:00pm - 4:50pm	Seats (Total: 24) PHY 3214	 Lab
0301	Anwar Bhatti Tu 1:00pm - 2:50pm	Seats (Total: 24) PHY 3214	 Lab

PHYS111 **Physics in the Modern World**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: PS

A survey course in general physics emphasizing the role that physics plays in science, technology, and society today. The course is concept oriented and minimal use of mathematics is made. Intended for the general student; does not satisfy the requirements of the professional schools.

Contact department for information to register for this course.

PHYS121 **Fundamentals of Physics I**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: PL | General Education: DSNL

Prerequisite: MATH112 or MATH115. Credit only granted for: PHYS121, PHYS131, or PHYS331.

The first part of a two-semester course in general physics treating the fields of mechanics, heat, sound, electricity, magnetism, optics, and modern physics. Together with PHYS122, this generally satisfies the minimum requirement of medical and dental schools.

Physics Clinic, PHY 1214, MTWHF 12,2. If purchasing used books additional software may be required. Students must pay a $50.00 lab materials fee.

0301	Negar Heidarian Boroujeni MWF 3:00pm - 3:50pm M 11:00am - 12:50pm W 11:00am - 11:50am	Seats (Total: 28) PHY 1412 PHY 3306 PHY 1219	 Lab Discussion
0302	Negar Heidarian Boroujeni MWF 3:00pm - 3:50pm Tu 1:00pm - 2:50pm Th 1:00pm - 1:50pm	Seats (Total: 28) PHY 1412 PHY 3306 PHY 1219	 Lab Discussion
0303	Negar Heidarian Boroujeni MWF 3:00pm - 3:50pm Th 12:00pm - 1:50pm Tu 12:00pm - 12:50pm	Seats (Total: 28) PHY 1412 PHY 3306 HBK 0125	 Lab Discussion

0304	Negar Heidarian Boroujeni MWF 3:00pm - 3:50pm Th 4:00pm - 5:50pm Tu 4:00pm - 4:50pm	Seats (Total: 28) PHY 1412 PHY 3306 PHY 1219	 Lab Discussion
0305	Negar Heidarian Boroujeni MWF 3:00pm - 3:50pm Tu 5:00pm - 6:50pm Th 5:00pm - 5:50pm	Seats (Total: 28) PHY 1412 PHY 3306 PHY 1219	 Lab Discussion
0306	Negar Heidarian Boroujeni MWF 3:00pm - 3:50pm Tu 10:00am - 11:50am Th 10:00am - 10:50am	Seats (Total: 28) PHY 1412 PHY 3306 PHY 1219	 Lab Discussion
0307	Negar Heidarian Boroujeni MWF 3:00pm - 3:50pm W 11:00am - 12:50pm M 11:00am - 11:50am	Seats (Total: 28) PHY 1412 PHY 3306 PHY 1219	 Lab Discussion
0401	Negar Heidarian Boroujeni M 7:00pm - 8:50pm W 7:00pm - 7:50pm M 5:00pm - 6:50pm W 8:00pm - 8:50pm	Seats (Total: 28) PHY 1410 PHY 1410 PHY 3306 PHY 1219	 Lab Discussion
0403	Negar Heidarian Boroujeni M 7:00pm - 8:50pm W 7:00pm - 7:50pm W 5:00pm - 6:50pm M 6:00pm - 6:50pm	Seats (Total: 28) PHY 1410 PHY 1410 PHY 3306 PHY 1219	 Lab Discussion
0405	Negar Heidarian Boroujeni M 7:00pm - 8:50pm W 7:00pm - 7:50pm Th 6:00pm - 7:50pm W 6:00pm - 6:50pm	Seats (Total: 28) PHY 1410 PHY 1410 PHY 3306 PHY 1219	 Lab Discussion

PHYS122 **Fundamentals of Physics II**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: PL | General Education: DSNL

Prerequisite: PHYS121; or students who have taken courses with comparable content may contact the department. Credit only granted for: PHYS122, PHYS132, or PHYS332.

A continuation of PHYS121, which together with it, generally satisfies the minimum requirement of medical and dental schools.

Physics Clinic, PHY 1214, MTWHF 11,2. If purchasing used books additional software may be required. Students must pay a $50.00 lab materials fee.

0301	Negar Heidarian Boroujeni	Seats (Total: 24)	
	TuTh 3:30pm - 4:45pm	PHY 1410	
	Th 10:00am - 11:50am	PHY 3314	Lab
	Th 9:00am - 9:50am	PHY 1219	Discussion
0302	Negar Heidarian Boroujeni	Seats (Total: 24)	
	TuTh 3:30pm - 4:45pm	PHY 1410	
	Th 12:00pm - 1:50pm	PHY 3314	Lab
	Th 11:00am - 11:50am	MTH B0425	Discussion
0303	Negar Heidarian Boroujeni	Seats (Total: 24)	
	TuTh 3:30pm - 4:45pm	PHY 1410	
	M 2:00pm - 3:50pm	PHY 3314	Lab
	M 1:00pm - 1:50pm	PHY 0405	Discussion
0304	Negar Heidarian Boroujeni	Seats (Total: 24)	
	TuTh 3:30pm - 4:45pm	PHY 1410	
	W 2:00pm - 3:50pm	PHY 3314	Lab
	W 1:00pm - 1:50pm	PHY 0405	Discussion
0502	Negar Heidarian Boroujeni	Seats (Total: 24)	
	Tu 7:00pm - 8:50pm	PHY 1410	
	Th 7:00pm - 7:50pm	PHY 1410	
	Tu 5:00pm - 6:50pm	PHY 3314	Lab
	Tu 4:00pm - 4:50pm	PHY 0405	Discussion
0503	Negar Heidarian Boroujeni	Seats (Total: 24)	
	Tu 7:00pm - 8:50pm	PHY 1410	
	Th 7:00pm - 7:50pm	PHY 1410	
	M 7:00pm - 8:50pm	PHY 3314	Lab
	M 6:00pm - 6:50pm	PHY 0405	Discussion

0504	Negar Heidarian Boroujeni	Seats (Total: 5)	
	Tu 7:00pm - 8:50pm	PHY 1410	
	Th 7:00pm - 7:50pm	PHY 1410	
	Th 8:00pm - 9:50pm	PHY 3314	Lab
	Tu 9:00pm - 9:50pm	PHY 1219	Discussion
SES1	Negar Heidarian Boroujeni	Seats (Total: 19)	
	Tu 7:00pm - 8:50pm	PHY 1410	
	Th 7:00pm - 7:50pm	PHY 1410	
	Th 8:00pm - 9:50pm	PHY 3314	Lab
	Tu 9:00pm - 9:50pm	PHY 1219	Discussion
	Must be in the Science in the Evening (SIE) Program. Click here for more information.		

PHYS131 **Fundamentals of Physics for Life Sciences I**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM131; and (MATH136 or MATH140); and (BSCI160 and BSCI161; or BSCI106); and (BSCI170 and BSCI171; or BSCI105). Credit only granted for: PHYS121, PHYS131, or PHYS331.

The first part of a two-semester course in general physics specifically oriented towards applications relevant for students in biology and pre-medical programs. The course covers basic mechanics including forces and energy, properties of matter, and thermodynamics done in authentic biological contexts.

Students must pay a $50.00 lab materials fee.

0101	David Buehrle	Seats (Total: 24)	
	TuTh 11:00am - 12:15pm	PHY 1410	
	W 10:00am - 11:50am	PHY 3310	Lab
	W 9:00am - 9:50am	PHY 3310	Discussion
0102	David Buehrle	Seats (Total: 24)	
	TuTh 11:00am - 12:15pm	PHY 1410	
	M 10:00am - 11:50am	PHY 3310	Lab
	M 9:00am - 9:50am	PHY 3310	Discussion
0103	David Buehrle	Seats (Total: 24)	
	TuTh 11:00am - 12:15pm	PHY 1410	
	Th 3:00pm - 4:50pm	PHY 3310	Lab
	Th 2:00pm - 2:50pm	PHY 3310	Discussion

0104	David Buehrle	Seats (Total: 24)	
	TuTh 11:00am - 12:15pm	PHY 1410	
	M 6:00pm - 7:50pm	PHY 3310	Lab
	M 5:00pm - 5:50pm	PHY 3310	Discussion
0105	David Buehrle	Seats (Total: 24)	
	TuTh 11:00am - 12:15pm	PHY 1410	
	W 6:00pm - 7:50pm	PHY 3310	Lab
	W 5:00pm - 5:50pm	PHY 3310	Discussion
0201	David Buehrle	Seats (Total: 24)	
	MWF 11:00am - 11:50am	PHY 1410	
	Tu 10:00am - 11:50am	PHY 3310	Lab
	Tu 9:00am - 9:50am	PHY 3310	Discussion
0202	David Buehrle	Seats (Total: 24)	
	MWF 11:00am - 11:50am	PHY 1410	
	W 3:00pm - 4:50pm	PHY 3310	Lab
	W 2:00pm - 2:50pm	PHY 3310	Discussion
0203	David Buehrle	Seats (Total: 24)	
	MWF 11:00am - 11:50am	PHY 1410	
	M 3:00pm - 4:50pm	PHY 3310	Lab
	M 2:00pm - 2:50pm	PHY 3310	Discussion
0204	David Buehrle	Seats (Total: 24)	
	MWF 11:00am - 11:50am	PHY 1410	
	Tu 6:00pm - 7:50pm	PHY 3310	Lab
	Tu 5:00pm - 5:50pm	PHY 3310	Discussion
0205	David Buehrle	Seats (Total: 24)	
	MWF 11:00am - 11:50am	PHY 1410	
	Tu 3:00pm - 4:50pm	PHY 3310	Lab
	Tu 2:00pm - 2:50pm	PHY 3310	Discussion

PHYS132 **Fundamentals of Physics for Life Sciences II**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS131; or students who have taken courses with comparable content may contact the department. Credit only granted for: PHYS122, PHYS132, or PHYS332.

The second part of a two-semester course in general physics specifically oriented towards applications relevant for students in biology and pre-medical programs. The course covers basic statistical physics, electricity and magnetism, and optics done in authentic biological contexts.

Students must pay a $50.00 lab materials fee.

0101	David Buehrle	Seats (Total: 24)	
	MWF 10:00am - 10:50am	ESJ 0224	
	M 12:00pm - 1:50pm	PHY 3312	Lab
	M 11:00am - 11:50am	PHY 3312	Discussion
0102	David Buehrle	Seats (Total: 24)	
	MWF 10:00am - 10:50am	ESJ 0224	
	W 12:00pm - 1:50pm	PHY 3312	Lab
	W 11:00am - 11:50am	PHY 3312	Discussion
0103	David Buehrle	Seats (Total: 24)	
	MWF 10:00am - 10:50am	ESJ 0224	
	Tu 12:00pm - 1:50pm	PHY 3312	Lab
	Tu 11:00am - 11:50am	PHY 3312	Discussion
0104	David Buehrle	Seats (Total: 24)	
	MWF 10:00am - 10:50am	ESJ 0224	
	Tu 3:00pm - 4:50pm	PHY 3312	Lab
	Tu 2:00pm - 2:50pm	PHY 3312	Discussion
0105	David Buehrle	Seats (Total: 24)	
	MWF 10:00am - 10:50am	ESJ 0224	
	Th 9:00am - 10:50am	PHY 3312	Lab
	Th 8:00am - 8:50am	PHY 3312	Discussion
0106	David Buehrle	Seats (Total: 24)	
	MWF 10:00am - 10:50am	ESJ 0224	
	Th 12:00pm - 1:50pm	PHY 3312	Lab
	Th 11:00am - 11:50am	PHY 3312	Discussion
0107	David Buehrle	Seats (Total: 24)	
	MWF 10:00am - 10:50am	ESJ 0224	
	Tu 6:00pm - 7:50pm	PHY 3312	Lab
	Tu 5:00pm - 5:50pm	PHY 3312	Discussion

0108	David Buehrle	Seats (Total: 24)	
	MWF 10:00am - 10:50am	ESJ 0224	
	W 6:00pm - 7:50pm	PHY 3312	Lab
	W 5:00pm - 5:50pm	PHY 3312	Discussion
0109	David Buehrle	Seats (Total: 24)	
	MWF 10:00am - 10:50am	ESJ 0224	
	Th 6:00pm - 7:50pm	PHY 3312	Lab
	Th 5:00pm - 5:50pm	PHY 3312	Discussion
0201	Matt Severson	Seats (Total: 24)	
	TuTh 12:30pm - 1:45pm	PHY 1412	
	Tu 9:00am - 10:50am	PHY 3312	Lab
	Tu 8:00am - 8:50am	PHY 3312	Discussion
0202	Matt Severson	Seats (Total: 24)	
	TuTh 12:30pm - 1:45pm	PHY 1412	
	W 3:00pm - 4:50pm	PHY 3312	Lab
	W 2:00pm - 2:50pm	PHY 3312	Discussion
0203	Matt Severson	Seats (Total: 24)	
	TuTh 12:30pm - 1:45pm	PHY 1412	
	M 3:00pm - 4:50pm	PHY 3312	Lab
	M 2:00pm - 2:50pm	PHY 3312	Discussion
0204	Matt Severson	Seats (Total: 24)	
	TuTh 12:30pm - 1:45pm	PHY 1412	
	W 9:00am - 10:50am	PHY 3312	Lab
	W 8:00am - 8:50am	PHY 3312	Discussion
0205	Matt Severson	Seats (Total: 24)	
	TuTh 12:30pm - 1:45pm	PHY 1412	
	Th 3:00pm - 4:50pm	PHY 3312	Lab
	Th 2:00pm - 2:50pm	PHY 3312	Discussion
0206	Matt Severson	Seats (Total: 24)	
	TuTh 12:30pm - 1:45pm	PHY 1412	
	M 6:00pm - 7:50pm	PHY 3312	Lab
	M 5:00pm - 5:50pm	PHY 3312	Discussion

PHYS161 General Physics: Mechanics and Particle Dynamics

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: PS	General Education: DSNS

Prerequisite: Must have completed or be concurrently enrolled in MATH141. Credit only granted for: PHYS141, PHYS161, or PHYS171.

First semester of a three-semester calculus-based general physics course. Laws of motion, force, and energy; principles of mechanics, collisions, linear momentum, rotation, and gravitation.

Physics Clinic, PHY 1214, MTWHF 11, 1, 2. If purchasing used books additional software may be required.

0101	David Buehrle TuTh 2:00pm - 3:15pm TuTh 2:00pm - 3:15pm M 9:00am - 9:50am	Seats (Total: 33) PHY 1412 PHY 1410 PHY 1204	Discussion
0102	David Buehrle TuTh 2:00pm - 3:15pm TuTh 2:00pm - 3:15pm W 4:00pm - 4:50pm	Seats (Total: 33) PHY 1412 PHY 1410 PHY 1402	Discussion
0103	David Buehrle TuTh 2:00pm - 3:15pm TuTh 2:00pm - 3:15pm F 9:00am - 9:50am	Seats (Total: 33) PHY 1412 PHY 1410 PHY 1219	Discussion
0104	David Buehrle TuTh 2:00pm - 3:15pm TuTh 2:00pm - 3:15pm F 10:00am - 10:50am	Seats (Total: 33) PHY 1412 PHY 1410 PHY 1219	Discussion
0105	David Buehrle TuTh 2:00pm - 3:15pm TuTh 2:00pm - 3:15pm M 9:00am - 9:50am	Seats (Total: 33) PHY 1412 PHY 1410 PHY 1402	Discussion
0106	David Buehrle TuTh 2:00pm - 3:15pm TuTh 2:00pm - 3:15pm M 3:00pm - 3:50pm	Seats (Total: 33) PHY 1412 PHY 1410 PHY 1204	Discussion

0107	David Buehrle TuTh 2:00pm - 3:15pm TuTh 2:00pm - 3:15pm M 4:00pm - 4:50pm	Seats (Total: 33) PHY 1412 PHY 1410 PHY 1204	 Discussion
0108	David Buehrle TuTh 2:00pm - 3:15pm TuTh 2:00pm - 3:15pm W 4:00pm - 4:50pm	Seats (Total: 33) PHY 1412 PHY 1410 PHY 1204	 Discussion
0109	David Buehrle TuTh 2:00pm - 3:15pm TuTh 2:00pm - 3:15pm M 4:00pm - 4:50pm	Seats (Total: 33) PHY 1412 PHY 1410 PHY 1402	 Discussion
0110	David Buehrle TuTh 2:00pm - 3:15pm TuTh 2:00pm - 3:15pm M 3:00pm - 3:50pm	Seats (Total: 33) PHY 1412 PHY 1410 PHY 1402	 Discussion
0301	Hailu Gebremariam MWF 2:00pm - 2:50pm Tu 3:00pm - 3:50pm	Seats (Total: 30) PHY 1412 PHY 4221	 Discussion
0302	Hailu Gebremariam MWF 2:00pm - 2:50pm Tu 4:00pm - 4:50pm	Seats (Total: 30) PHY 1412 PHY 1204	 Discussion
0303	Hailu Gebremariam MWF 2:00pm - 2:50pm Th 4:00pm - 4:50pm	Seats (Total: 30) PHY 1412 PHY 1204	 Discussion
0304	Hailu Gebremariam MWF 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 30) PHY 1412 PHY 1204	 Discussion
0305	Hailu Gebremariam MWF 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 30) PHY 1412 PHY 1204	 Discussion

0306	Hailu Gebremariam MWF 2:00pm - 2:50pm M 11:00am - 11:50am	Seats (Total: 30) PHY 1412 PHY 1204	Discussion
0307	Hailu Gebremariam MWF 2:00pm - 2:50pm Th 3:00pm - 3:50pm	Seats (Total: 30) PHY 1412 PLS 1113	Discussion
0308	Hailu Gebremariam MWF 2:00pm - 2:50pm Tu 4:00pm - 4:50pm	Seats (Total: 30) PHY 1412 PHY 4221	Discussion
0401	Hailu Gebremariam M 7:00pm - 8:50pm W 7:00pm - 7:50pm W 8:00pm - 8:50pm	Seats (Total: 33) PHY 1412 PHY 1412 PHY 1204	Discussion
0402	Hailu Gebremariam M 7:00pm - 8:50pm W 7:00pm - 7:50pm W 6:00pm - 6:50pm	Seats (Total: 33) PHY 1412 PHY 1412 PHY 1204	Discussion
0403	Hailu Gebremariam M 7:00pm - 8:50pm W 7:00pm - 7:50pm M 6:00pm - 6:50pm	Seats (Total: 33) PHY 1412 PHY 1412 PHY 1204	Discussion

PHYS165 **Introduction to Programming in the Physical Sciences**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS171, PHYS141, or PHYS161; or must have scored 3 or higher on AP PHYS exam.

Introduction to programming using examples in the physical sciences. Provides instruction in the techniques of upper-level languages such as Fortran, C, and Pascal, as well as an introduction to the object oriented programming techniques used in Python, C++ and Java. Includes strong component of visualization and graphing.

0101	Carter Hall MWF 11:00am - 11:50am	Seats (Total: 60) PHY 4221	

PHYS171 **Introductory Physics: Mechanics and Relativity**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: PS | General Education: DSNS

Prerequisite: (MATH140; and a high school physics course); or permission of CMNS-Physics department. And must have completed or be concurrently enrolled in MATH141. Credit only granted for: PHYS141, PHYS161, or PHYS171.

First semester of a three semester sequence for physics majors and those desiring a rigorous preparation in the physical sciences: kinematics, Newton's laws, energy and work, linear and angular momenta, temperature and pressure, ideal gas law, and special relativity.

0101	Kara Hoffman	Seats (Total: 50)	
	TuTh 12:30pm - 1:45pm	PHY 4221	
	M 10:00am - 10:50am	ESJ 2212	

PHYS172 **Succeeding in Physics: Applications, Resources and Concepts**

(Perm req)

Credits: 1 | Grading Method: Sat-Fail

Corequisite: PHYS171. Restriction: Permission of CMNS-Physics department.

Supplemental instruction and support for students taking PHYS171, especially for students with limited high school physics preparation, or who will benefit from extra review and practice of relevant mathematics and physics concepts and skills.

0101	Peter Shawhan	Seats (Total: 8)	
	W 10:00am - 10:50am	PHY 1219	

PHYS260 **General Physics: Vibration, Waves, Heat, Electricity and Magnetism**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNL (if taken with PHYS261)

Prerequisite: PHYS161 and MATH141. Corequisite: PHYS261. Credit only granted for: PHYS142, PHYS260, or PHYS272.

Second semester of a three-semester calculus-based general physics course. Vibrations, waves, fluids; heat, kinetic theory, and thermodynamics; electrostatics, circuits, and magnetism. PHYS260 and PHYS261 must be taken in the same semester.

If purchasing used books additional software may be required.

0101	Erin Sohr	Seats (Total: 35)	
	MWF 10:00am - 10:50am	PHY 1410	
	W 2:00pm - 2:50pm	PHY 0405	Discussion

0102	Erin Sohr MWF 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 35) PHY 1410 PHY 1219	Discussion
0104	Erin Sohr MWF 10:00am - 10:50am W 12:00pm - 12:50pm	Seats (Total: 35) PHY 1410 PHY 2208	Discussion
0201	Andris Skuja MW 4:00pm - 5:15pm Tu 11:00am - 11:50am	Seats (Total: 35) PHY 1412 HBK 0105	Discussion
0203	Andris Skuja MW 4:00pm - 5:15pm W 9:00am - 9:50am	Seats (Total: 35) PHY 1412 PHY 0405	Discussion
0205	Andris Skuja MW 4:00pm - 5:15pm Tu 4:00pm - 4:50pm	Seats (Total: 35) PHY 1412 PHY 1201	Discussion
0301	Shabnam Jabeen MWF 3:00pm - 3:50pm M 12:00pm - 12:50pm	Seats (Total: 35) PHY 1410 PHY 1204	Discussion
0302	Shabnam Jabeen MWF 3:00pm - 3:50pm Th 11:00am - 11:50am	Seats (Total: 35) PHY 1410 JMP 2202	Discussion
0303	Shabnam Jabeen MWF 3:00pm - 3:50pm F 1:00pm - 1:50pm	Seats (Total: 35) PHY 1410 EGR 2154	Discussion
0304	Shabnam Jabeen MWF 3:00pm - 3:50pm F 11:00am - 11:50am	Seats (Total: 34) PHY 1410 JMP 1109	Discussion

PHYS261 **General Physics: Vibrations, Waves, Heat, Electricity and Magnetism (Laboratory)**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS161.

Lab includes experiments on mechanics, vibrations, waves, and heat. Engineering majors are expected to take PHYS260 and PHYS261 in the same semester.

Students must pay a $50.00 lab materials fee.

0101	Matt Severson M 6:00pm - 8:20pm	Seats (Total: 36) PHY 3219	Lab
0102	Matt Severson M 12:00pm - 2:20pm	Seats (Total: 36) PHY 3219	Lab
0103	Matt Severson W 6:00pm - 8:20pm	Seats (Total: 36) PHY 3219	Lab
0104	Matt Severson Tu 2:00pm - 4:20pm	Seats (Total: 36) PHY 3219	Lab
0105	Matt Severson Tu 5:00pm - 7:20pm	Seats (Total: 36) PHY 3219	Lab
0107	Matt Severson W 11:00am - 1:20pm	Seats (Total: 36) PHY 3219	Lab
0108	Matt Severson Th 12:00pm - 2:20pm	Seats (Total: 36) PHY 3219	Lab
0109	Matt Severson Th 9:00am - 11:20am	Seats (Total: 36) PHY 3219	Lab
0110	Matt Severson Th 3:00pm - 5:20pm	Seats (Total: 36) PHY 3219	Lab

PHYS270 **General Physics: Electrodynamics, Light, Relativity and Modern Physics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNL (if taken with PHYS271)

Prerequisite: PHYS261, MATH241, and PHYS260. Corequisite: PHYS271.

Third semester of a three-semester calculus-based general physics course. Electrodynamics, Maxwell's equations and electromagnetic waves, geometrical optics, interference, diffraction, special theory of relativity, and modern physics. PHYS270 and PHYS271 (lab) must be taken in the same semester.

If purchasing used books additional software may be required.

0101	Hailu Gebremariam MWF 1:00pm - 1:50pm W 2:00pm - 2:50pm	Seats (Total: 33) PHY 1412 PHY 1204	 Discussion
0102	Hailu Gebremariam MWF 1:00pm - 1:50pm M 3:00pm - 3:50pm	Seats (Total: 33) PHY 1412 CHM 1224	 Discussion
0103	Hailu Gebremariam MWF 1:00pm - 1:50pm W 11:00am - 11:50am	Seats (Total: 33) PHY 1412 MTH 0101	 Discussion
0104	Hailu Gebremariam MWF 1:00pm - 1:50pm Th 8:00am - 8:50am	Seats (Total: 33) PHY 1412 EGR 2154	 Discussion
0106	Hailu Gebremariam MWF 1:00pm - 1:50pm M 11:00am - 11:50am	Seats (Total: 33) PHY 1412 MTH 0305	 Discussion
0201	Hailu Gebremariam MWF 12:00pm - 12:50pm M 9:00am - 9:50am	Seats (Total: 35) PHY 1412 PHY 0405	 Discussion
0202	Hailu Gebremariam MWF 12:00pm - 12:50pm W 9:00am - 9:50am	Seats (Total: 35) PHY 1412 PHY 2124	 Discussion
0203	Hailu Gebremariam MWF 12:00pm - 12:50pm M 10:00am - 10:50am	Seats (Total: 35) PHY 1412 EGR 0135	 Discussion
0204	Hailu Gebremariam MWF 12:00pm - 12:50pm M 11:00am - 11:50am	Seats (Total: 35) PHY 1412 JMP 1202	 Discussion
0205	Hailu Gebremariam MWF 12:00pm - 12:50pm W 11:00am - 11:50am	Seats (Total: 35) PHY 1412 PHY 1204	 Discussion

0206	Hailu Gebremariam MWF 12:00pm - 12:50pm W 10:00am - 10:50am	Seats (Total: 35) PHY 1412 PHY 0405	Discussion
0401	Drew Baden MW 5:00pm - 6:15pm M 6:30pm - 7:20pm	Seats (Total: 34) PHY 1410 MTH 0101	Discussion
0402	Drew Baden MW 5:00pm - 6:15pm W 6:30pm - 7:20pm	Seats (Total: 33) PHY 1410 PHY 0405	Discussion

PHYS271 **General Physics: Electrodynamics, Light, Relativity and Modern Physics (Laboratory)**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS261. Corequisite: PHYS270.

Lab includes experiments on ac circuits, magnetism, light and modern physics. PHYS270 and PHYS271 (lab) must be taken in the same semester.

Students must pay a $50.00 lab materials fee.

0101	Matt Severson M 9:00am - 11:50am	Seats (Total: 36) PHY 3213	Lab
0103	Matt Severson M 3:00pm - 5:50pm	Seats (Total: 36) PHY 3213	Lab
0104	Matt Severson Tu 8:00am - 10:50am	Seats (Total: 36) PHY 3213	Lab
0105	Matt Severson M 6:00pm - 8:50pm	Seats (Total: 36) PHY 3213	Lab
0106	Matt Severson Tu 11:00am - 1:50pm	Seats (Total: 36) PHY 3213	Lab
0107	Matt Severson Tu 4:00pm - 6:50pm	Seats (Total: 36) PHY 3213	Lab

0108	Matt Severson W 5:00pm - 7:50pm	Seats (Total: 36) PHY 3213	Lab
0109	Matt Severson Th 1:00pm - 3:50pm	Seats (Total: 36) PHY 3213	Lab
0110	Matt Severson W 2:00pm - 4:50pm	Seats (Total: 36) PHY 3213	Lab
0111	Matt Severson Th 9:00am - 11:50am	Seats (Total: 36) PHY 3213	Lab
0112	Matt Severson Th 4:00pm - 6:50pm	Seats (Total: 36) PHY 3213	Lab
0113	Matt Severson Th 7:00pm - 9:50pm	Seats (Total: 36) PHY 3213	Lab
0114	Matt Severson Tu 7:00pm - 9:50pm	Seats (Total: 36) PHY 3213	Lab

PHYS272 **Introductory Physics: Fields**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNL (if taken with PHYS275)

Prerequisite: PHYS161 or PHYS171; and MATH141; and must have completed or be concurrently enrolled in MATH241. Credit only granted for: PHYS142, PHYS260, or PHYS272. Additional information: CORE Distributive Studies Physical Sciences Laboratory Course only when taken concurrently with PHYS275.

Second semester of a calculus based general physics course. Universal gravitation, electric and magnetic fields and potentials, simple circuits, Maxwell's equations in integral form. Continues the application of mathematics to conceptual models, now with more abstract components.

Cross-listed with PHYS272H. Credit granted for PHYS272 or PHYS272H.

0101	Eun-Suk Seo TuTh 12:30pm - 1:45pm W 10:00am - 10:50am	Seats (Total: 49) PHY 1402 PHY 4221	

PHYS272H **Introductory Physics: Fields**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DSNL (if taken with PHYS275)

Prerequisite: PHYS161 or PHYS171; and MATH141; and must have completed or be concurrently enrolled in MATH241. Credit only granted for: PHYS142, PHYS260, or PHYS272. Additional information: CORE Distributive Studies Physical Sciences Laboratory Course only when taken concurrently with PHYS275.

Second semester of a calculus based general physics course. Universal gravitation, electric and magnetic fields and potentials, simple circuits, Maxwell's equations in integral form. Continues the application of mathematics to conceptual models, now with more abstract components.

For general honors students only. Cross-listed with PHYS272. Credit granted for PHYS272 or PHYS272H.

0101	Eun-Suk Seo TuTh 12:30pm - 1:45pm W 10:00am - 10:50am	Seats (Total: 49) PHY 1402 PHY 4221

PHYS273 **Introductory Physics: Waves**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH241 and PHYS272. Corequisite: PHYS274.

Oscillations and AC circuits using complex variables, Fourier series and integrals, waves on strings, sound; electromagnetic waves from Maxwell's equations in differential form; physical optics.

Cross-listed with PHYS273H. Credit granted for PHYS273 or PHYS273H.

0101	Peter Shawhan TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 78) PHY 1410 ESJ 0215

PHYS273H **Introductory Physics: Waves**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH241 and PHYS272. Corequisite: PHYS274.

Oscillations and AC circuits using complex variables, Fourier series and integrals, waves on strings, sound; electromagnetic waves from Maxwell's equations in differential form; physical optics.

For general honors students only. Cross-listed with PHYS273. Credit granted for PHYS273 or PHYS273H.

0101	Peter Shawhan TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 78) PHY 1410 ESJ 0215	

PHYS274 **Mathematical Methods for Physics I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH241 and PHYS272.

A first course in mathematical methods for physics. Topics include linear algebra, curvilinear coordinates and vector analysis.

0101	Maissam Barkeshli MWF 2:00pm - 2:50pm	Seats (Total: 52) PHY 1201	

PHYS275 **Experimental Physics I: Mechanics and Heat**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS161 or PHYS171. Additional information: CORE Physical Science Lab (PL) Course only when taken concurrently with PHYS272.

Methods and rationale of experimental physics. Intended for physics majors and science and engineering students who desire a more rigorous approach. Experiments chosen from the areas of mechanics (from PHYS171), gas laws, and heats. Theory and applications of error analysis.

0101	Rajarshi Roy W 2:00pm - 5:50pm	Seats (Total: 12) PHY 3104	Lab
0201	Rajarshi Roy M 2:00pm - 5:50pm	Seats (Total: 12) PHY 3104	Lab
0301	Arpita Upadhyaya Tu 2:00pm - 5:50pm	Seats (Total: 12) PHY 3104	Lab
0401	Arpita Upadhyaya Th 2:00pm - 5:50pm	Seats (Total: 12) PHY 3104	Lab

PHYS276 **Experimental Physics II: Electricity and Magnetism**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS272 and PHYS275.

Second course in the three semester introductory sequence. Methods and rationale of experimental physics. Experiments chosen from the fields of electricity and magnetism including electrostatics, magnetostatics, magnetic induction, AC circuits.

0101	Sarah Eno M 1:00pm - 4:50pm	Seats (Total: 12) PHY 3203	 Lab
0201	Sarah Eno Tu 1:00pm - 4:50pm	Seats (Total: 12) PHY 3203	 Lab
0301	Norbert Linke Th 2:00pm - 5:50pm	Seats (Total: 12) PHY 3203	 Lab
0401	Norbert Linke W 2:00pm - 5:50pm	Seats (Total: 12) PHY 3203	 Lab

PHYS298B **Special Topics in Physics; Science and Society via Film**

Credits: 1

Grading Method: Sat-Fail

Special topics in physics.

This one credit course will illustrate important societal science issues through film. Each session will consist of a film screening, hosted by an expert in a related field. The host will give an introductory lecture and lead a discussion afterwards. There will be no weekly homework. The grade will be based on a final paper, written on one of the movies, discussing how the movie is relevant to today' s issues.

0101	Drew Baden Tu 6:00pm - 8:50pm	Seats (Total: 100) ESJ 2208

PHYS299 **Special Problems in Physics**

(Perm req)

Credits: 1-6

Grading Method: Regular, Pass-Fail, Audit

Research or special study to complement courses taken elsewhere which are not fully equivalent to those in departmental requirements. Credit according to work done.

Contact department for information to register for this course.

PHYS299R **Special Problems in Physics; General Physics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Research or special study to complement courses taken elsewhere which are not fully equivalent to those in departmental requirements. Credit according to work done.

Contact department for information to register for this course.

PHYS332 **Physics for Life Sciences II**

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS331; or PHYS131; or students who have taken courses with comparable content may contact the department. Credit only granted for: PHYS122, PHYS132, or PHYS332.

The second part of a two-semester course in general physics specifically oriented towards applications relevant for students in biology and pre-medical programs. The course covers basic statistical physics, electricity and magnetism, and optics done in authentic biological contexts.

ESG1	Nidhi Verma MW 11:00am - 12:15pm M 2:00pm - 5:00pm	Seats (Total: 15) BLD4 5321 BLD4 3322	 Lab
	Registration is restricted to Biological Sciences - Shady Grove majors.		
ESG2	Nidhi Verma MW 11:00am - 12:15pm W 2:00pm - 5:00pm	Seats (Total: 15) BLD4 5321 BLD4 3322	 Lab
	Registration is restricted to Biological Sciences - Shady Grove majors.		

PHYS371 **Modern Physics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS273 and PHYS274. Corequisite: PHYS373. Credit only granted for: PHYS371 or PHYS420. Additional information: This course is intended primarily for physics and astronomy majors.

Introduces students to special relativity, thermodynamics and quantum mechanics at an intermediate level.

0101	Chandra Turpen TuTh 9:30am - 10:45am	Seats (Total: 60) ATL 2324
0201	Bei Lok Hu MW 12:30pm - 1:45pm	Seats (Total: 40) CHM 1228

PHYS373 **Mathematical Methods for Physics II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS273 and PHYS274.

A second course in mathematical methods for physics. Topics include introduction to ordinary differential equations, partial differential equations, and complex analysis.

0101	Zackaria Chacko TuTh 12:30pm - 1:45pm	Seats (Total: 55) CHE 2108	

PHYS375 **Experimental Physics III: Electromagnetic Waves, Optics and Modern Physics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: PHYS276 and PHYS273.

Third course in the three-semester introductory sequence. Methods and rationale of experimental physics. Experiments chosen from the areas of electromagnetic waves, optics and modern physics.

0101	Alicia Kollar M 2:00pm - 2:50pm M 3:00pm - 5:50pm	Seats (Total: 14) PHY 1402 PHY 3115	 Lab
0201	Alicia Kollar M 2:00pm - 2:50pm Tu 3:00pm - 5:50pm	Seats (Total: 14) PHY 1402 PHY 3115	 Lab
0301	Alicia Kollar M 2:00pm - 2:50pm W 3:00pm - 5:50pm	Seats (Total: 14) PHY 1402 PHY 3115	 Lab
0401	Alicia Kollar M 2:00pm - 2:50pm Th 3:00pm - 5:50pm	Seats (Total: 14) PHY 1402 PHY 3115	 Lab

PHYS386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

PHYS389 **Undergraduate Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Independent directed research and study on a topic selected by the student in consultation with his or her advisor. Final written thesis and oral defense will be expected.

Contact department for information to register for this course.

PHYS398 **Independent Studies Seminar**

(Perm req)

Credits: 1-16 Grading Method: Regular, Pass-Fail, Audit

Credit according to work done. Enrollment is limited to students admitted to the independent studies program in physics.

Contact department for information to register for this course.

PHYS398T **Independent Studies Seminar; Seminar in Interdisciplinary STEM Education: Teaching Physics for Biologists**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Credit according to work done. Enrollment is limited to students admitted to the independent studies program in physics.

Contact department for information to register for this course.

PHYS399 **Special Problems in Physics**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Selected advanced experiments. (Will be given with sufficient demand.)

Contact department for information to register for this course.

PHYS399I **Special Problems in Physics; Diversity, Equity and Inclusion in STEM Seminar**

(Perm req)

Credits: 1 Grading Method: Regular

Selected advanced experiments. (Will be given with sufficient demand.)

0101	Donna Hammer, Thomas Gleason	Seats (Total: 8)
	Meets February 7, 2022 - May 10, 2022	
	M 5:00pm - 6:30pm	PHY 4221

PHYS399J **Special Problems in Physics; Physics STEM SEminar V**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Selected advanced experiments. (Will be given with sufficient demand.)

Contact department for information to register for this course.

PHYS401 **Quantum Physics I**

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS371 and PHYS373. Formerly: PHYS421.

Introduces some quantum phenomena leading to wave-particle duality. Schroedinger theory for bound states and scattering in one dimension. One-particle Schroedinger equation and the hydrogen atom.

0101	Victor Galitski	Seats (Total: 68)
	MW 10:00am - 10:50am	PHY 1201
	MW 11:00am - 11:50am	PHY 1201

PHYS402 **Quantum Physics II**

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS401.

Quantum states as vectors; spin and spectroscopy, multiparticle systems, the periodic table, perturbation theory, band structure, etc.

0101	Christopher Lobb	Seats (Total: 73)
	MWF 9:00am - 9:50am	PHY 1201
	F 1:00pm - 1:50pm	ESJ 1215

PHYS404 **Introduction to Statistical Thermodynamics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS371 or PHYS420.

Introduction to basic concepts in thermodynamics and statistical mechanics.

0101	Howard Milchberg	Seats (Total: 70)
	TuTh 12:30pm - 1:45pm	PHY 1410

PHYS405 **Advanced Experiments**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS375. Restriction: Must be in a major within CMNS-Physics department.

Advanced laboratory techniques. Selected experiments from many fields of modern physics. Emphasis on self-study of the phenomena, data analysis, and presentation in report form.

0101	Shabnam Jabeen	Seats (Total: 16)	
	W 12:00pm - 12:50pm	PHY 1204	Lab
	TBA	PHY 3112	Lab
0102	Huayu Zhang, Min Ouyang	Seats (Total: 16)	
	W 12:00pm - 12:50pm	JMZ 3122	Lab
	TBA	PHY 3112	Lab

PHYS407 **Undergraduate Experimental Research**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: PHYS499 and PHYS375; and permission of CMNS-Physics department. Restriction: Must be in a major within CMNS-Physics department; and senior standing.

Students develop and complete an independent, experimental research project with a professor in the Physics Department. The project should be a continuation of work done in PHYS499A. To obtain permission, students must submit a proposal describing the experimental work to be completed and this proposal must be approved by their faculty mentor, the associate chair for undergraduate education and the chair of the laboratory committee. Students must maintain a lab notebook, give an oral presentation and complete a written report on their research that includes data and error analysis.

0101	Carter Hall	Seats (Total: 10)
	Contact instructor or department for details.	

PHYS410 **Classical Mechanics**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS373.

Theoretical foundations of mechanics with extensive application of the methods. Various mathematical tools of theoretical physics.

0101	Theodore Jacobson	Seats (Total: 44)
	TuTh 11:00am - 12:15pm	PHY 0405
	F 10:00am - 10:50am	PHY 0405

PHYS411 **Intermediate Electricity and Magnetism**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS373.

Foundations of electromagnetic theory, with extensive applications of the methods. Thorough treatment of wave properties of solutions of Maxwell's equations.

0101	Zohreh Davoudi	Seats (Total: 63)
	TuTh 9:30am - 10:45am	PHY 1201
	F 12:00pm - 12:50pm	PHY 1201

PHYS420 **Principles of Modern Physics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH246. And PHYS271 and PHYS270; or PHYS273. Credit only granted for: PHYS371 or PHYS420.

A survey of atomic and nuclear phenomena and the main trends in modern physics. Appropriate for students in engineering and other physical sciences.

0101	Matt Severson	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	PHY 1402

PHYS431 **Introduction to Solid State Physics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS271, PHYS270, and MATH241. Restriction: Junior standing or higher; and must be in the Engineering: Materials Science program or Physics program. Cross-listed with: ENMA460. Credit only granted for: ENMA460 or PHYS431. Additional information: Materials Engineering students take ENMA460 and Physics students take PHYS431.

Classes of materials; introduction to basic ideal and real materials' behavior including mechanical, electrical, thermal, magnetic and optical responses of materials; importance of microstructure in behavior. One application of each property will be discussed in detail.

0101	Ichiro Takeuchi MW 5:00pm - 6:15pm	Seats (Total: 20) PHY 1402

PHYS441 **Topics in Nuclear and Particle Physics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS401 or PHYS402. Corequisite: PHYS402.

A survey of concepts in particle and nuclear physics, with a topical emphasis on the impact of the Weak Interaction and the discovery of Parity Violation.

0101	Christopher Palmer TuTh 2:00pm - 3:15pm	Seats (Total: 41) PHY 1402

PHYS457 **Introduction to Quantum Computing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: 1 course with a minimum grade of C- from (MATH240, PHYS274); and 1 course with a minimum grade of C- from (CMSC351, PHYS373). Restriction: Permission of CMNS-Physics department; or permission of CMNS-Computer Science department. Cross-listed with CMSC4 57. Credit only granted for: PHYS457 or CMSC457. Additional infor mation: No previous background in quantum mechanics is required.

An introduction to the concept of a quantum computer, including algorithms that outperform classical computation and methods for performing quantum computation reliably in the presence of noise. As this is a multidisciplinary subject, the course will cover basic concepts in theoretical computer science and physics in addition to introducing core quantum computing topics.

0101	Xiaodi Wu TuTh 11:00am - 12:15pm	Seats (Total: 14) IRB 1207

PHYS465 **Essentials of Contemporary Optics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS371 or permission of the instructor.

Intermediate undergraduate course on contemporary optics: nature of light, geometric and physical optics, contemporary light sources and properties, contemporary light-matter interaction topics.

Restriction: Must be a physics major (19020, 1902E) or a physics minor (#CM11). All other students will need to be placed on a holdfile.

0101	Wendell Hill	Seats (Total: 30)
	TuTh 9:30am - 10:45am	JMP 2202

PHYS474 **Computational Physics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS404; and PHYS373; and (PHYS165, CMSC106, or CMSC131). Or permission of instructor.

This course provides an overview of some of the most widely used methods of computational physics, including numerical integration (elementary algorithms and Monte Carlo techniques), numerical solutions of differential equations (classical equations of motion, time independent and time dependent Schrodinger equations), molecular dynamics simulations (classical many-body systems), and Monte Carlo simulations (classical models of magnetism). In addition to giving the students a basic working knowledge of these particular techniques, the goal is to make them proficient in scientific computing and programming in general, so that they will be prepared to tackle also other computational problem that they may encounter in the future.

0101	Gregory Sullivan	Seats (Total: 36)
	MW 3:00pm - 4:15pm	PHY 4221

PHYS499A **Special Problems in Physics**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Research or special study. Credit according to work done.

Contact department for information to register for this course.

PHYS499B **Special Problems in Physics**

(Perm req)

Credits: 1-16 Grading Method: Regular, Pass-Fail, Audit

Research or special study. Credit according to work done.

Contact department for information to register for this course.

PHYS499O **Special Problems in Physics; Atomic, Molecular and Optical Physics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Research or special study. Credit according to work done.

Contact department for information to register for this course.

PHYS499T **Special Problems in Physics; Accelerator Physics - Building the Maryland 5 MeV Cyclotron**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Research or special study. Credit according to work done.

Prerequisite: ENEE380. Corequisite: ENEE381 or PHYS411; or permission of instructor. Restriction: Permission of ECE department. Cyclotrons are versatile accelerators whose use, because of an unsurpassed economic footprint, continues to expand in basic research, industry, medicine, and education. They also capture most of fundamentalphysics and technology of the biggest particle accelerators, such as CERN's LHC. This course provides students with a hands-on introduction to fundamental beam physics as well as the technology of cyclotrons, their design, commissioning, and operation. Students of this course will be designing and building a cyclotron.

0101	Brian Beaudoin	Seats (Total: 14)	
	TuTh 9:30am - 10:45am	EGR 3106	
	F 9:00am - 12:00pm	EGR 0312	Lab

PHYS499V **Special Problems in Physics; Colloquium for Undergraduate Physics Majors**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Research or special study. Credit according to work done.

0101	Instructor: TBA	Seats (Total: 60)
	Th 4:00pm - 6:50pm	Location: TBA

PHYS499X **Special Problems in Physics; Making Physics Experiments**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Research or special study. Credit according to work done.

Prerequisite: PHYS276 or permission of instructor. Laboratory course emphasizing practical skills used for making physics experiments within the broader context of the maker movement and the maker culture. Course will cover design, fabrication, hands-on skills, repair, and safety.

0101	Daniel Lathrop	Seats (Total: 15)	
	TuTh 11:00am - 11:50am	PHY 1219	
	Th 2:00pm - 3:50pm	Location: TBA	Lab

PHYS611 **Mathematical Methods and Their Applications in Classical Mechanics and Electrodynamics II**

(Perm req)

Credits: 4 Grading Method: Regular, Audit

Prerequisite: Must have an outstanding undergraduate background in physics. Restriction: Permission by Department.

Second course of a two-semester graduate level sequence on classical mechanics, electrodynamics and relativity and the mathematics that underlie these subjects. Mathematical methods will generally be introduced in the context of relevant physical problems.

0101	James Drake	Seats (Total: 68)
	TuTh 11:00am - 12:50pm	PHY 1201

PHYS613 **Quantum and Statistical Physics II**

(Perm req)

Credits: 4 Grading Method: Regular, Audit

Prerequisite: Must have an outstanding undergraduate background in physics. Restriction: Permission by Department.

Second course of a two-semester graduate level sequence on topics in quantum mechanics and statistical mechanics.

0101	Victor Yakovenko	Seats (Total: 75)
	MW 2:00pm - 3:50pm	PLS 1130

PHYS625 **Non-relativistic Quantum Mechanics**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: PHYS623.

Non-relativistic second quantization, single particle Green's function, perturbation theory, linked cluster expansion, Feynman and Goldstone diagrams; applications to imperfect Fermi gases; superconductivity.

0101	Jay Sau	Seats (Total: 30)
	MW 12:30pm - 1:45pm	PHY 1219

0201	Instructor: TBA MW 12:30pm - 1:45pm Contact instructor or department for details.	Seats (Total: 10) ONLINE

This section, aimed primarily at International students, covers the same material as PHYS 625, but in addition to the usual course has a weekly in-person problem-solving session.

PHYS709 **Seminar in General Physics; Statistical Physics**

Credits: 1 Grading Method: Regular, Audit

Cross-listed with CHPH709B. Credit granted for CHPH709B or PHYS709.

0101	Pratyush Tiwary Tu 1:15pm - 2:30pm	Seats (Total: 30) IPT 1116

PHYS728 **Seminar in Atomic and Molecular Physics**

Credits: 1 Grading Method: Regular, Audit

0101	Mohammad Hafezi M 11:00am - 12:15pm	Seats (Total: 30) PLS 1117

PHYS738 **Seminar in Experimental Solid State Physics; Quantum Mechanical Many-Body Problems**

Credits: 1 Grading Method: Regular, Audit

Advanced special students require department authorization.

0101	Johnpierre Paglione Th 2:00pm - 3:30pm	Seats (Total: 30) PHY 1201

PHYS739 **Seminar in Theoretical Solid State Physics; Quantum Mechanical Many-Body Problems**

Credits: 1 Grading Method: Regular, Audit

Advanced special students require department authorization.

0101	Sankar Das Sarma Tu 11:00am - 12:30pm	Seats (Total: 30) JMP 2202

PHYS747 **Quantum Chromodynamics**

Credits: 3 Grading Method: Regular, Audit

Recommended: PHYS624 or PHYS625.

A survey of the theory and phenomenology of strong interactions aimed at students with some basic familiarity with Quantum Field Theory.

0101	Paulo Bedaque MW 10:00am - 11:15am	Seats (Total: 20) CHE 2140

PHYS748 **Seminar in Experimental Nuclear Physics; Seminar in Nuclear Physics**

Credits: 1 Grading Method: Regular, Audit

0101	Carter Hall W 11:30am - 1:00pm	Seats (Total: 10) Location: TBA

PHYS749 **Seminar in Theoretical Nuclear Physics**

Credits: 1 Grading Method: Regular, Audit

0101	Paulo Bedaque Th 2:30pm - 4:00pm	Seats (Total: 30) EGR 2116

PHYS752 **Elementary Particle Physics II: Theory**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: PHYS751 and PHYS624.

Survey of elementary particles and their properties, quantum field theory, meson theory, weak interactions, possible extensions of elementary particle theory.

0101	Kaustubh Agashe MW 11:30am - 12:45pm	Seats (Total: 25) PHY 0405

PHYS758E **Seminar in Elementary Particles and Quantum Field Theory; Experimental Results Including Cosmic Ray Physics**

Credits: 1 | Grading Method: Regular, Audit

0101	Kara Hoffman W 4:00pm - 5:30pm	Seats (Total: 25) PHY 0405

PHYS759 **Seminar in Elementary Particles and Quantum Field Theory**

Credits: 1 | Grading Method: Regular, Audit

Advanced special students require department authorization.

0101	Kaustubh Agashe M 3:00pm - 4:30pm	Seats (Total: 27) PSC 3150

PHYS762 **Plasma Physics II**

Credits: 3 | Grading Method: Regular, Audit, Sat-Fail

Prerequisite: PHYS761.

Continuation of PHYS 761. Vlasov theory, including waves, stability, and weak turbulence, kinetic equation theories of correlations and radiative processes.

0101	William Dorland Th 2:00pm - 4:50pm	Seats (Total: 25) PHY 1219

PHYS769 **Seminar in Plasma Physics; Plasma Physics Research**

Credits: 1 | Grading Method: Regular, Audit

Advanced special students require department authorization.

0101	Adil Hassam W 3:30pm - 5:00pm	Seats (Total: 20) PHY 2124

PHYS778 **Seminar in Space and Cosmic Ray Physics**

Credits: 1 | Grading Method: Sat-Fail, Audit

Advanced special students require department authorization.

0101	Eun-Suk Seo M 4:30pm - 5:45pm	Seats (Total: 15) EGR 3111

PHYS781 **Network Science Research-in-Progress Seminar**

Credits: 1 Grading Method: Regular, Audit

Credit only granted for: PHYS781 or PHYS798U. Formerly: PHYS798U.

Practice communicating scientific results and concepts to a general scientific audience, based on the student's research-in-progress.

0101	Daniel Serrano, Michelle Girvan W 1:00pm - 1:50pm	Seats (Total: 20) IPT 1116

PHYS798 **Special Problems in Advanced Physics**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Projects or special study in advanced physics.

Contact department for information to register for this course.

PHYS798B **Special Problems in Advanced Physics; Physics Colloquium**

Credits: 1 Grading Method: Regular, Audit

Projects or special study in advanced physics.

0101	Thomas Cohen Tu 4:00pm - 5:30pm	Seats (Total: 100) PHY 1412

PHYS798C **Special Problems in Advanced Physics; Superconductivity: An Introduction to the Phenomenology and Theory of Superconductivity**

Credits: 3 Grading Method: Regular, Audit

Projects or special study in advanced physics.

0101	Steven Anlage TuTh 9:30am - 10:45am	Seats (Total: 30) PHY 1204

PHYS798J **Special Problems in Advanced Physics; Science and Technology Policy**

Credits: 3 Grading Method: Regular, Audit

Projects or special study in advanced physics.

Jointly offered with PLCY689L. Credit only granted for PLCY689L or PHYS7 98J.

0101	Sylvester Gates, Rosina Bierbaum	Seats (Total: 34)
	Tu 7:00pm - 9:30pm	PHY 1201

PHYS798L **Special Problems in Advanced Physics; Biophysics**

Credits: 1 Grading Method: Regular, Audit

Projects or special study in advanced physics.

Cross-listed with CHPH709L and BIPH698L. Credit granted for CHPH709L, BIPH698L or PHYS798L.

0101	Arpita Upadhyaya	Seats (Total: 20)
	M 4:00pm - 5:30pm	IPT 1116

PHYS798Q **Special Problems in Advanced Physics; Seminar in Quantum Physics, Information, and Technology**

Credits: 1 Grading Method: Regular, Audit

Projects or special study in advanced physics.

0101	Alexey Gorshkov	Seats (Total: 100)
	F 1:00pm - 1:50pm	ATL 2324

PHYS798Z **Special Problems in Advanced Physics; Computational and Mathematical Analysis for Networks Across Scales**

Credits: 3 Grading Method: Regular, Audit

Projects or special study in advanced physics.

0101	Michelle Girvan	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	HJP 2242

PHYS799 **Master's Thesis Research**

(Perm req) Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

PHYS838C **Special Topics in Experimental Solid State Physics; Center for Nanophysics and Advanced Materials Seminar**

Credits: 2 Grading Method: Regular, Audit

Credit according to work done.

0101	Johnpierre Paglione, Richard Greene	Seats (Total: 30)
	M 4:00pm - 6:00pm	PHY 1201

PHYS839A **Special Topics in Theoretical Solid State Physics**

Credits: 1-4 Grading Method: Regular, Audit

Credit according to work done.

0101	Sankar Das Sarma	Seats (Total: 10)
	Contact instructor or department for details.	

PHYS851 **Advanced Quantum Field Theory**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: PHYS624.

Renormalization, unitarity, gauge theory, S-matrix construction.

0101	Anson Hook	Seats (Total: 24)
	TuTh 11:00am - 12:20pm	ATL 0201

PHYS889C **Special Topics in Interdisciplinary Problems; Classical and Quantum Codes**

Credits: 3 Grading Method: Regular, Audit

Credit according to work done.

Prerequisites: MATH405 or MATH461, and ENEE324; or students who have taken courses with comparable content may contact the department. Cross-listing with MATH729C and CMSC858Q and ENEE729C. Credit only granted forENEE729C, CMSC858Q, MATH729C, or PHYS899C. The course will cover topics in classical and quantum coding theory from the unified perspective of protecting information in classical communication and supporting fault-tolerant computations in quantum computers. Topics in classical codes include: Reed-Solomon codes, codes on algebraic curves, Reed-Muller codes, polar codes, rank metric codes. Topics in quantum codes include: stabilizer codes, CSS codes, GKP codes, polynomial codes, toric code. See www.ece.umd.edu/~abarg/CQC for further details.

0101	Alexander Barg, Victor Albert	Seats (Total: 36)
	MW 11:00am - 12:15pm	PHY 2124

PHYS898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

PHYS899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

PLCY Public Policy Spring 2022

PLCY100 **Foundations of Public Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS

A survey course, focusing on public policy institutions and analytical issues as well as on overview of key public policy problems. Students will be introduced to public policy as a discipline, with a brief overview of the actors and institutions involved in the process, and familiarize themselves with the kinds of problems typically requiring public action. The course will examine these problems from a multijurisdictional and multisectoral perspective. Specific policy areas examined include education policy, health policy, economic and budgetary policy, criminal justice policy, environmental policy, and national and homeland security policy. The course should permit students to have broad foundational exposure to the field that will give them a solid base for more advanced courses.

0101	Shanna Pearson	Seats (Total: 33)	
	MW 12:00pm - 12:50pm	SQH 1120	
	F 9:00am - 9:50am	EDU 1121	Discussion

0102	Shanna Pearson MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 34) SQH 1120 ASY 3207	Discussion
0103	Shanna Pearson MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 33) SQH 1120 TYD 2106	Discussion
0201	Shanna Pearson MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 25) VMH 1203 TWS 1313	Discussion
0202	Shanna Pearson MW 2:00pm - 2:50pm F 12:00pm - 12:50pm	Seats (Total: 25) VMH 1203 TWS 1313	Discussion

PLCY101 **Great Thinkers on Public Policy**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Great ideas in public policy, such as equality, efficiency, sovereignty, liberty, bureaucracy, democracy and security are explored through the lens of great thinkers. An introduction to the intellectual foundations of public policy, from ancient theories on collective public action through the more contemporary development of public policy as a discipline. This may start as early as the ancient Greek philosophers and their views on public action through contemporary classics of public policy. At the conclusion of the course, students will have read classic works in the field and will master the key themes that have dominated the intellectual debates about public policy over its history. Emphasis will be on the interdisciplinary foundations of public policy, through examining core disciplinary contributions from economics, political science, management, philosophy, and other relevant disciplines.

0101	Mathew Feehan MW 7:00pm - 8:15pm	Seats (Total: 45) ESJ 1215	
0201	Gregory Ramsay MW 11:00am - 11:50am F 11:00am - 11:50am *For students with an interest in Global dimensions of Public Policy.*	Seats (Total: 23) TWS 0320 ASY 3221	Discussion
0202	Gregory Ramsay MW 11:00am - 11:50am F 12:00pm - 12:50pm *For students with an interest in Global Dimensions of Public Policy.*	Seats (Total: 22) TWS 0320 ASY 3217	Discussion

PLCY201 **Public Leaders and Active Citizens**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DSSP, SCIS

Credit only granted for: PLCY201 or PUAF201. Formerly: PUAF201.

Aims to inspire, teach and engage students in the theory and practice of public leadership from the local to the national to the global level. Students will learn and apply diverse approaches to leadership in a multicultural society while developing an understanding of key frameworks and practices necessary to foster collective action across private, public, and nonprofit sectors. This course will allow students to become informed citizens able to reason critically and persuasively about public matters Students will also explore and assess their own personal values, beliefs, and purpose as they develop their leadership potential.

0101	Mathew Feehan MW 4:30pm - 5:45pm	Seats (Total: 45) KEY 0103
0201	Nancy Lineman Tu 5:15pm - 7:45pm	Seats (Total: 45) TWS 0320
0301	Anne Kaiser Th 5:00pm - 7:30pm	Seats (Total: 45) VMH 1203

PLCY203 **Liberty and Justice for All: Ethics and Moral Issues in Public Policy**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Students will broaden their understanding of the moral dimensions of public policy as well as their own individual moral perspective. Discussions will include the ideal of a just society, and the place of liberty and equality in it, while focusing on contemporary theories of ethics and justice. It will develop students' appreciation of the ethical challenges unique to the public service sector while building their skills in ethical analysis and decision-making. We will explore the increasing ethical challenges in a world in which technology, global risks, and societal developments are accelerating faster than our understanding can keep pace. A framework for ethical decision-making underpins the course.

0101	Brian Sarginger MW 3:00pm - 4:15pm	Seats (Total: 41) PHY 2106

PLCY213 **Foundations of Nonprofit Leadership and Social Innovation**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Through discussions of contemporary trends, challenges and issues, this course provides an introduction to the nonprofit and NGO sectors, social innovation, and the leadership and management skills required to achieve social impact. The course will explore the history, theories, and roles of philanthropy, the nonprofit sector, and social innovation in societies and cultures. Students will be able to demonstrate an understanding of the process and principles of social entrepreneurship and social innovation. Additionally, the course will introduce students to topics in leadership, social innovation, resource development, community mobilization through networks, the role of policy-making in creating change, project management, and overall strategies for achieving social impact. The course will include mini hands-on learning experiences that allow them to apply key learning outcomes.

0101	Selvon Waldron M 6:00pm - 8:30pm	Seats (Total: 40) ASY 3211
0201	Ebonie Cooper-Jean Tu 3:00pm - 5:30pm	Seats (Total: 40) TWS 1100

PLCY215 **Innovation and Social Change: Creating Change for Good**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Credit only granted for: PLCY215 or PUAF215. Formerly: PUAF215.

A team-based, highly interactive and dynamic course that provides an opportunity for students to generate solutions to a wide range of problems facing many communities today. Students in the iGIVE Program will deepen their understanding of entrepreneurship and innovation practices by creating and implementing projects or ventures that address an issue of their choosing while learning topics such as communications, project management, teamwork, leadership, fundraising, project sustainability and next steps in social change.

Restricted to member of the iGive Living Learning Program.

0101	Patricia Bory TuTh 2:00pm - 3:15pm	Seats (Total: 47) ASY 3207

PLCY240 **Ethical, Policy and Social Implications of Science and Technology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP, SCIS

Restriction: Must be in the Science, Technology, Ethics and Policy minor. Cross-listed with: ENES240. Credit only granted for: ENES240 or PLCY240.

Asks students to think about how society should manage complexity, transformation, and uncertainty with an eye on developing a broader sense of ethics and social responsibility. Introduces analytical frameworks, concepts, and data collection techniques that interdisciplinary scholars use to map relationships among science, technology and society and generate important questions about the future of society.

0101	Timothy Reedy	Seats (Total: 50)
	TuTh 3:30pm - 4:45pm	EGR 0108

PLCY288A **Introduction to Public Policy Topics; 21st Century Racial Justice and Gender from the Bullhorn to the Ballot**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Introductory-level special topics focusing on a Public Policy problem or issue area.

The intersection of gender and racial justice movements of the past two decades. Students will examine the representation and complication of gender within police reform, voting rights and environmental justice movements, among others. Particular attention will be given to the role gender has played as these issues and related policies have evolved in the modern era.

0101	Rexanah Wyse Morrissette	Seats (Total: 25)
	TuTh 6:00pm - 7:15pm	TWS 1313

PLCY288W **Introduction to Public Policy Topics; Global Action and Problem Solving**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Introductory-level special topics focusing on a Public Policy problem or issue area.

Today's most pressing problems do not stop at national borders. Meeting these challenges requires a range of state and non-state actors to work together. In this course, students gain familiarity with key actors in the global system and how they approach today's most intractable problems, including violent conflict, human rights, non-proliferation of weapons of mass destruction, migration, trade, climate change, and global health. How do countries, international organizations, multinational corporations, and nongovernmental organizations find ways to cooperate when their interests and capabilities sometimes differ drastically? What barriers exist that impede such cooperation? This course can be taken as a stand-alone class for those interested in issues of global cooperation and problem solving and will also prepare students in the GAPS focus area for more advanced electives.

0101	Devin Entrikin	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	VMH 1207

PLCY300 **Governance: Collective Action in the Public Interest**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PLCY100. Restriction: Must be in a major in PLCY-School of Public Policy.

Examination of societal responses to public problems, including actions by government, non-profit and private sector actors, as well as civil society. Students will examine the roles of these various actors, as well as the nature of civic responsibility. The course will examine the various stages of the policy process, asking the following questions: How does something get defined as a problem that requires a public policy response? How do we think about what the options are for this response, and how do we choose among them? What are the factors that contribute to successful policy implementation? How do we evaluate the success of public policies? These questionswill be addressed using examples of current public policy problems, and students will be expected to engage in individual and collaborative work to design responses to those problems.

0101	Joannie Tremblay-Boire TuTh 9:30am - 10:45am	Seats (Total: 40) EDU 1121
0201	Joannie Tremblay-Boire TuTh 12:30pm - 1:45pm	Seats (Total: 40) SQH 1101

PLCY301 **Sustainability**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: AGNR301. Credit only granted for: AGNR301, PUAF301, or PLCY301. Formerly: PUAF301.

Designed for students whose academic majors would be enhanced by the complementary study of a widely shared but hard-to-operationalize aspiration: that present choices should preserve or improve future options rather than foreclose or degrade them. How should we understand sustainability? How might we achieve it? How would we know if we had achieved it? And how could sustainability activists of a rising generation lead by example?

0101	Matthew Regan TuTh 3:30pm - 4:45pm	Seats (Total: 169) SHM 2102

PLCY302 **Examining Pluralism in Public Policy**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DVCC

Credit only granted for: PLCY302 or PUAF302. Formerly: PUAF302.

Understanding pluralism and how groups and individuals coexist in society is an essential part of the public policy process. This course will examine the ways in which the diverse experiences of race, gender, ethnicity, class, orientation, identity, and religion impact the understanding of and equitable delivery of public policy. The examination of how identity development shapes our understanding of society and influences the decision-making process is central to students' shaping policy that is truly for the people. This course will equip students with the skills needed to analyze pluralism and draw conclusions about the application of various theories to public policy issues.

0101	Toby Egan, PATRINA CLARK Tu 3:30pm - 6:00pm	Seats (Total: 45) VMH 1203
0201	Alana Hackshaw TuTh 12:30pm - 1:45pm	Seats (Total: 40) HJP 2242
0301	Ricco Hall W 5:00pm - 7:30pm	Seats (Total: 55) SQH 1117
0401	Ebonie Cooper-Jean TuTh 12:30pm - 1:45pm	Seats (Total: 40) VMH 1203

PLCY303 **Public Economics Raising and Spending the People's Money**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ECON200. Restriction: Must be in a major in PLCY-School of Public Policy.

Applied course in public finance, including introductions to resource mobilization (including taxation), macroeconomic policy, key public expenditure policies, and government budgetary processes and politics. The course will build on the foundations from ECON 202 to address the specific application of public finance principles to solving public problems. The course will focus on the principles of welfare economics (including market failure), economic principles as applied to particular spending programs and tax choices, and issues and institutions involved in the allocation and management of resources both at a national and subnational level. The focus of the course is on these issues from both a domestic and global perspective.

0101	Juan Martinez Guzman MW 2:00pm - 3:15pm	Seats (Total: 40) SQH 1101
0201	Juan Martinez Guzman MW 10:00am - 11:15am	Seats (Total: 40) SQH 1103
0301	Aichiro Prabowo TuTh 2:00pm - 3:15pm	Seats (Total: 40) EDU 2119

PLCY304 **Evaluating Evidence: Finding Truth in Numbers**

Credits: 4 Grading Method: Regular, Pass-Fail

Prerequisite: STAT100. Restriction: Must be in a major in PLCY-School of Public Policy.

Enables students to understand the research done by others with a sufficiently skeptical eye to allow them to determine whether the findings of the research are valid given the assumptions made and methods used. This will involve, in part, thinking about the various problems in research design or conduct that could lead to faulty conclusions. It will also involve being able to differentiate between credible sources of information and those that are not objective. At the conclusion of the course, students should be able to differentiate objective evidence from political argumentation.

0101	Michael Busse TuTh 2:00pm - 3:15pm F 11:00am - 11:50am	Seats (Total: 40) VMH 1207 TYD 2102	 Discussion

PLCY306 **Public Policy Analysis in Action**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must have earned a minimum of 60 credits; and must be in a major in PLCY-School of Public Policy.

Utilizes our unique location in the Washington, D.C. region to create a laboratory within which to analyze local, regional, national and international policy problems. Students will be put into teams and assigned to real and timely policy cases. The course will include meetings and field trips with local leaders in the field, ideally connected to the cases. Student will then expand and apply their use of policy analysis and evaluation skills to define those problems, analyze alternative responses, devise appropriate strategies for implementation, and evaluate the success of the proposed policy and implementation. The course will conclude with team presentations to local leaders and faculty. This distinctive course will serve to prepare students for their client- based senior capstone course.

0101	Naoko Aoki W 3:30pm - 6:00pm	Seats (Total: 40) TYD 2109
0201	Leonard Howie Th 4:00pm - 6:30pm	Seats (Total: 40) SQH 1101

PLCY309 **Internship in Political Institutions: State and Local**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Offers students supervised internship placements in state and local political or public policy organizations.

0101	Martin Sanders	Seats (Total: 65)
	Contact instructor or department for details.	

PLCY310 **Nonprofit Leadership and Social Innovation in Action**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PLCY 213.

Furthers students understanding of topics in leadership, social innovation, resource development, community mobilization through networks, and the role of policy making in creating change. This course will further students understanding of the creation and leadership of nonprofits, social ventures, governance and boards; strategic planning and partnerships; advocacy and public policy processes; community outreach; working in teams, effective communications, and cross-sector approaches to scaling up social impact.

0101	Ebonie Cooper-Jean	Seats (Total: 45)
	M 2:00pm - 4:30pm	ASY 3211

PLCY313 **Advocacy in the American Political System**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: PUAF313, PLCY313 or PUAF359C. Formerly: PUAF359C.

Introduces students to the creation of law through the legislative process with a special focus on the Maryland General Assembly.

0101	Gerard Evans	Seats (Total: 92)
	M 2:00pm - 4:30pm	TWS 0320

PLCY380 **Innovation and Social Change: Do Good Now**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP, SCIS

Credit only granted for: ARHU380, BSOS388B, PLCY388D, or PLCY380. Formerly: PLCY388D.

Introduces students to the concept of social innovation while exploring the many mechanisms for achieving social impact. It is team-based, highly interactive and dynamic, and provides an opportunity for students to generate solutions to a wide range of problems facing many communities today. Deepens the students understanding of entrepreneurship and innovation practices by guiding them through the creation and implementation process as applied to a project idea of their choice.

0101	Katlin Gray TuTh 9:30am - 10:45am	Seats (Total: 45) ARC 1105

PLCY386 **Experiential Learning**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of PLCY-School of Public Policy. Credit only granted for: PLCY386 or PUAF386. Formerly: PUAF386.

Contact department for information to register for this course.

PLCY388 **Special Topics in Public Policy**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

0101	Jennifer Littlefield Class time/details on ELMs	Seats (Total: 30) ONLINE

PLCY388A **Special Topics in Public Policy; Child and Family Policy Impact**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

Cross-listing with FMSC498P. Credit only granted for PLCY388A or FMSC498P.

0101	Brandi Slaughter TuTh 2:00pm - 3:15pm	Seats (Total: 24) PHY 0405
0201	Brandi Slaughter TuTh 3:30pm - 4:45pm	Seats (Total: 24) PHY 2213

PLCY388C **Special Topics in Public Policy; Fundamentals of Cybersecurity for Policy Makers**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

Jointly offered with INST467. Credit only granted for PLCY388C or INST467. Students will explore the key issues facing policy makers attempting to manage the problem of cybersecurity from its technical foundationsto domestic and international policy considerations surrounding governance, privacy, risk management, and operational orchestration. It is designed for students with no background in information technology, and will provide the principles to understand the current debates shaping a rapidly evolving security landscape.

0101	Charles Harry MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 40) CHE 2108 CHE 2108	 Discussion
0102	Charles Harry MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 40) CHE 2108 CHE 2108	 Discussion

PLCY388F **Special Topics in Public Policy; Contemporary Issues Under the Rule of Law**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

Considers the impact of contemporary issues and public policy of the Courts through the examination of current issues under deliberation. Students will evaluate and opine on the competing legal and policy arguments in class and in papers as if they were the empowered judicial authority. Issues covered include: the growth of opinion-based news reporting versus factual news, "Fake news," and freedom of the press; voter photo ID laws, redistricting and political gerrymandering; continued racial segregation; holding public officials accountable for egregious constitutional violations; regulation of social media; and socioeconomicinequality. The course also provides a broad overview of the ways American courts function as well as interactive speakers and hands on experiences.

0101	Mariana Cordier TuTh 5:00pm - 6:15pm	Seats (Total: 25) ASY 3219

PLCY388O **Special Topics in Public Policy; China: China's Philanthropic and Social Sector - Policy and Management Perspectives**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

Contact department for information to register for this course.

PLCY388R **Special Topics in Public Policy; Nuclear Security Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

Students are introduced to major themes and debates in the contemporary study of nuclear security, from historical, theoretical, practical, and international perspectives. This course will provide students with the technical and conceptual tools needed to understand the role nuclear weapons play in international politics. It will include a historical overview of the nuclear age, including a discussion on the evolution of nuclear strategy and the introduction of a new nuclear lexicon, the global nuclear arms race, and the development of the international nuclear nonproliferation regime. The course will cover a wide range of contemporary nuclear challenges, including nuclear security/terrorism, non-state actor nuclear challenges, international momentum behind nuclear disarmament (particularly, the evolution of the Treaty on the Prohibition of Nuclear Weapons), and the role of nuclear weapons in international politics, paying particular attention to future U.S.-Russia/U.S.-China relations, and India-Pakistan-China relations.

0101	Ariel Petrovics	Seats (Total: 25)
	TuTh 9:30am - 10:45am	SQH 2120

PLCY388T **Special Topics in Public Policy; Undergraduate Teaching Assistant Directed Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

Restriction: Permission of department.

Contact department for information to register for this course.

PLCY388Z **Special Topics in Public Policy; Race, Capitalism and the Wealth Gap**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

America is experiencing some of the starkest income and wealth disparities in its history and several challenges continue to threaten its economic viability. Students will examine how the history and legacy of structural racism exacerbates economic inequality and forces America to lose trillions of dollars in its GDP every year. Particular attention will be given to the impact of the impending demographic shift to a majority people of color nation. Students will contemplate what and how leaders in government, business and community must act to prevent further exacerbation of income and wealth gaps.

0101	Janay Queen W 5:00pm - 7:30pm	Seats (Total: 25) SQH 1121

PLCY399B **Directed Study in Public Policy; Policy Ambassadors**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Guidance for the advanced student capable on interdisciplinary study on special projects under the supervision of faculty.

Contact department for information to register for this course.

PLCY399R **Directed Study in Public Policy; Independent Research**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

Guidance for the advanced student capable on interdisciplinary study on special projects under the supervision of faculty.

0101	Catherine Worsnop Contact instructor or department for details.	Seats (Total: 5)
0201	Alana Hackshaw Contact instructor or department for details.	Seats (Total: 5)
0301	Alec Worsnop Contact instructor or department for details.	Seats (Total: 5)

PLCY399T **Directed Study in Public Policy; Undergraduate Teaching Assistant**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

Guidance for the advanced student capable on interdisciplinary study on special projects under the supervision of faculty.

Contact department for information to register for this course.

PLCY400 **Senior Capstone**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: PLCY306. Restriction: Permission of PLCY-School of Public Policy; and must have earned a minimum of 90 credits.

Public Policy students will take the skills and knowledge gained through their curriculum and apply them through their senior capstone course. Students will work in teams on problems and issues presented by outside clients, with guidance from faculty facilitators and interaction with the clients. Each team will work with the client to address a particular problem and produce a mutually agreed upon outcome. These hands on projects will advance students' understanding of the analytical, leadership, communication and problem solving skills necessary to address today's policy problems while allowing them to gain professional level experience that could contribute to their success in their post UMD endeavors. The course will conclude with an event that allows all teams to present their findings and outcomes to their client while being evaluated by faculty and public policy professionals.

0101	Jennifer Littlefield Th 2:00pm - 4:30pm	Seats (Total: 30) SQH 1103
0201	Martin Sanders Tu 6:00pm - 8:30pm	Seats (Total: 30) SQH 2120
0301	PATRINA CLARK W 5:00pm - 7:30pm	Seats (Total: 30) MTH 0103

PLCY401 **Contemporary Issues in Public Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must have earned a minimum of 90 credits.

An integrative course that allows policy students to explore the complexities of the policy-making process from the perspective of specific policy topics. They will learn about and discuss subject- based issues in a seminar format led by faculty and policy experts. Site visits to federal agencies, guest speakers, and round table sessions ensure that students receive a variety of real-world perspectives on their chosen policy area.

0101	Amy Gordon W 9:00am - 11:30am	Seats (Total: 35) ASY 3203
	US Foreign Policy Decision-Making: national security, environmental, international economic and humanitarian issues.	
0201	Curtis Valentine M 5:00pm - 7:30pm	Seats (Total: 35) SQH 1121
	Analyzes historical and modern-day public policy shaping educational ou comes in the U.S. and abroad.	

PLCY610 **Quantitative Aspects of Public Policy**

Credits: 3

Grading Method: Regular, Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY610 or PUAF610. Formerly: PUAF610.

Introduces statistical methods needed for evaluating and choosing among policy options. Topics include probability; decision-making under uncertainty; the organization, interpretation, and visual display of complex data; prediction and inferences about causality; hypothesis testing; and linear and multiple regression. Develops analytical skills and the ability to apply theory to complex, real-world problems.

0101	Anthony Sanford W 4:15pm - 6:45pm Tu 7:00pm - 9:30pm	Seats (Total: 25) JMZ 3120 TWS 1106	 Discussion
0201	Seth Weissman W 4:15pm - 6:45pm Tu 7:00pm - 9:30pm	Seats (Total: 14) VMH 1207 VMH 1207	 Discussion

PLCY611 **Quantitative Analysis of Policy Issues**

Credits: 3

Grading Method: Regular, Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY611 or PUAF611. Formerly: PUAF611.

Study of a series of problems and the development of quantitative techniques to describe or evaluate the problem. The organization and interpretation of complex data and its use for prediction and inference about casual effects. The definition of objectives, trade-offs among objectives, and allocation of resources to meet objectives. Sensitivity of outcomes to changing conditions.

0101	Katrina Walsemann W 1:30pm - 4:00pm Th 7:00pm - 9:30pm	Seats (Total: 20) TYD 2106 VMH 1107	 Discussion

PLCY640 **Microeconomic and Policy Analysis**

Credits: 3

Grading Method: Regular, Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY640 or PUAF640. Formerly: PUAF640.

Applies intermediate microeconomic theory to public policy issues: resource allocation by firms and consumers; the response of economic agents to changes in incentives; market allocations in competitive and non-competitive environments; and market failures and government remedies. Uses extended case studies of particular issues in such areas as the environment (acid rain), international trade (tariffs), industry regulation (cable TV), and the provision of public goods (highways).

0101	Michael Busse Tu 4:15pm - 6:45pm F 9:15am - 11:45am	Seats (Total: 25) SQH 1111 ARC 1105	 Discussion
0201	Anthony Sanford W 9:15am - 11:45am Th 4:15pm - 6:45pm	Seats (Total: 20) SQH 2113 ARC 1125	 Discussion

PLCY641 **Macroeconomics and Policy Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY641 or PUAF641. Formerly: PUAF641.

Studies the behavior of the economy as a whole: the level of national income, unemployment, and inflation; the vulnerability of the U.S. economy to external influences; possible federal influence over the level of economic activity; and the consequences for prices, employment and the U.S. trade deficit. Also examines possible U.S. policy responses to widespread debt crises in developing countries.

0101	John Green Tu 1:30pm - 4:00pm M 9:15am - 11:45am	Seats (Total: 20) PHY 1219 HBK 0105	 Discussion

PLCY650 **Moral Dimensions of Public Policy**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY650 or PUAF650. Formerly: PUAF650.

Explores the moral issues involved in public policy questions; the limits and usefulness of decision-making tools; problems of choosing, justifying and using criteria to judge a program's success and suitability; ethichal issues involving the welfare state and income distribution; and possible obligations beyond one's political community and generation.

Contact department for information to register for this course.

PLCY670 **Public Budgeting & Financial Management**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLYC670 or PUAF670. Formerly: PUAF670.

Covers how governments raise, spend, borrow, and manage public funds. Reviews federal,state, and local budget processes and introduces analytical techniques including basic spreadsheet skills, evaluating alternative revenue sources, revenue and expenditure forecasting, cost allocation, capital budgeting, cost-benefit analysis, discounting and present value, bond analysis, cash management and intergovernmental finance.

0101	Thomas Spreen Tu 1:30pm - 4:00pm	Seats (Total: 30) HBK 0103
0201	Philip Joyce W 4:15pm - 6:45pm	Seats (Total: 30) ASY 3211

PLCY688E **Topics in Public Policy; Governance: Normative & Political Dimensions**

Credits: 3 Grading Method: Regular, Audit

Special topics in Public Policy.

Restricted to PLCY majors or permission of instructor.

0101	Mark Croatti Th 7:00pm - 9:30pm	Seats (Total: 20) ASY 3203

PLCY688F **Topics in Public Policy; State, Local & Non-Profit Financial Management**

Credits: 3 Grading Method: Regular, Audit

Special topics in Public Policy.

Restricted to PLCY majors or permission of instructor.

0201	Nathan Dietz Tu 6:30pm - 9:00pm	Seats (Total: 8) ONLINE

PLCY688G **Topics in Public Policy; Governance: Leadership, Management and Accountability**

Credits: 3

Grading Method: Regular, Audit

Special topics in Public Policy.

Restricted to PLCY majors or permission of instructor.

0101	Elizabeth Duke Tu 9:15am - 11:45am	Seats (Total: 22) PKT 1224
0201	Elizabeth Duke M 4:15pm - 6:45pm	Seats (Total: 22) PKT 1224

PLCY688I **Topics in Public Policy; Macroeconomics for Public Policy**

Credits: 2

Grading Method: Regular, Audit

Special topics in Public Policy.

Restricted to PLCY majors or permission of instructor.

Contact department for information to register for this course.

PLCY688K **Topics in Public Policy; Acquiring Emerging Technology**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Special topics in Public Policy.

Contact department for information to register for this course.

PLCY688N **Topics in Public Policy; Development Diplomacy and Leadership**

Credits: 3

Grading Method: Regular, Audit

Special topics in Public Policy.

Contact department for information to register for this course.

PLCY688R **Topics in Public Policy; Public Finance and Budgeting**

Credits: 2

Grading Method: Regular, Audit

Special topics in Public Policy.

Restricted to PLCY majors or permission of instructor.

Contact department for information to register for this course.

PLCY688X **Topics in Public Policy; Human Dignity**

Credits: 3 Grading Method: Regular, Audit

Special topics in Public Policy.

Restricted to PLCY majors or permission of instructor.

0101	Chloe Schwenke	Seats (Total: 20)
	Tu 7:00pm - 9:30pm	VMH 1107

PLCY689A **Public Policy Topics**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Special Topics in Public Policy.

Contact department for information to register for this course.

PLCY689E **Public Policy Topics; Program Evaluation and Cost-Benefit Analysis**

Credits: 3 Grading Method: Regular, Audit

Special Topics in Public Policy.

Restricted to PLCY majors or permission of instructor.

0101	Douglas Call, Douglas Besharov	Seats (Total: 30)
	M 7:00pm - 10:00pm	TWS 0320

PLCY689L **Public Policy Topics; Science and Technology Policy**

Credits: 3 Grading Method: Regular, Audit

Special Topics in Public Policy.

Jointly offered with PHYS798J. Credit only granted for PLCY689L or PHYS7 98J.

0101	Rosina Bierbaum, Sylvester Gates	Seats (Total: 34)
	Tu 7:00pm - 9:30pm	PHY 1201

PLCY689X **Public Policy Topics; Performance Management and Leadership**

Credits: 3

Grading Method: Regular, Audit

Special Topics in Public Policy.

For PLCY majors or permission of instructor.

0101	J Mihm	Seats (Total: 15)
	M 7:00pm - 9:30pm	ONLINE

PLCY689Y **Public Policy Topics; Nonprofit Fundraising**

Credits: 3

Grading Method: Regular, Audit

Special Topics in Public Policy.

Restricted to PLCY majors or permission of instructor. Class meets in Room 7878 Diamondback Drive, Suite B.

0101	Barbara O'Reilly, Robert Grimm	Seats (Total: 15)
	M 6:30pm - 9:00pm	ONLINE

PLCY689Z **Public Policy Topics; Strategic Management for NonProfit and Public Organizations**

Credits: 3

Grading Method: Regular, Audit

Special Topics in Public Policy.

0101	Robert Sheehan	Seats (Total: 15)
	Tu 6:30pm - 9:00pm	VMH 2505

PLCY692 **Leadership Principles and Practices**

Credits: 3

Grading Method: Regular, Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY692 or PUAF692. Formerly: PUAF692.

This course will introduce leadership principles and practices to students by focussing on the theory of leadership, different leadership themes and skills, and discussions with practitioners.

Contact department for information to register for this course.

PLCY698C **Selected Topics in Public Affairs; Intelligence and Policy: Executive, Congressional and Public Dimensions**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Special topics that arise in public policy.

0101	Ann White	Seats (Total: 22)
	M 4:15pm - 6:45pm	KNI 1206

PLCY698D **Selected Topics in Public Affairs; Social Entrepreneurship**

Credits: 3

Grading Method: Regular, Audit

Special topics that arise in public policy.

0101	Bethany Henderson	Seats (Total: 10)
	Th 6:30pm - 9:00pm	ONLINE

PLCY698E **Selected Topics in Public Affairs; Proseminar in Normative Public Policy**

Credits: 3

Grading Method: Regular, Audit

Special topics that arise in public policy.

0101	Robert Sprinkle	Seats (Total: 20)
	Th 4:15pm - 6:45pm	LEF 1221

PLCY698R **Selected Topics in Public Affairs; Developmental Challenges**

Credits: 3

Grading Method: Regular, Audit

Special topics that arise in public policy.

Restricted to PLCY Majors or permission of instructor.

0101	Mario Picon	Seats (Total: 25)
	W 4:15pm - 6:45pm	VMH 1203

PLCY698T **Selected Topics in Public Affairs; Managing Across Sectors**

Credits: 1-3

Grading Method: Regular, Audit

Special topics that arise in public policy.

Contact department for information to register for this course.

PLCY699D **Selected Topics Public Policy; Examining Social Identity and Pluralism in Public Policy**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special topics that arise in public policy.

0101	Patricia Bory M 1:30pm - 4:00pm	Seats (Total: 20) TYD 1132
0201	Ricco Hall M 1:30pm - 4:00pm	Seats (Total: 25) JMZ 2207

PLCY699F **Selected Topics Public Policy; Ethics of Public Administration**

Credits: 3 Grading Method: Regular, Audit

Special topics that arise in public policy.

For PLCY Majors or permission of instructor.

Contact department for information to register for this course.

PLCY699G **Selected Topics Public Policy**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Special topics that arise in public policy.

Contact department for information to register for this course.

PLCY699K **Selected Topics Public Policy; Civil Conflict**

Credits: 3 Grading Method: Regular, Audit

Special topics that arise in public policy.

For PLCY Majors or permission of instructor.

0101	David Backer Th 9:15am - 11:45am	Seats (Total: 20) EDU 2102

PLCY699O **Selected Topics Public Policy; 21st Century Policy Challenges**

Credits: 3

Grading Method: Regular, Audit

Special topics that arise in public policy.

For PLCY Majors or permission of instructor.

Contact department for information to register for this course.

PLCY699X **Selected Topics Public Policy**

Credits: 3

Grading Method: Regular, Audit

Special topics that arise in public policy.

Contact department for information to register for this course.

PLCY699Z **Selected Topics Public Policy; Energy Policy**

Credits: 3

Grading Method: Regular, Audit

Special topics that arise in public policy.

For PLCY Majors or permission of instructor.

0101	Nathan Hultman	Seats (Total: 20)
	M 1:30pm - 4:00pm	WDS 1130

PLCY711 **Public Management and Leadership**

Credits: 3

Grading Method: Regular, Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY711 or PUAF711. Formerly: PUAF711.

Reviews the managerial, political, and ethical problems faced by public sector managers and leaders, including setting an organization's goals, obtaining and protecting a program mandate, designing a service delivery system and implementing a new program.

Contact department for information to register for this course.

PLCY717 **Federal Budgeting: Policy and Process**

Credits: 3

Grading Method: Regular, Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY717 or PUAF717. Formerly: PUAF717.

Budgeting as a political and administrative instrument of government. Development of budgeting, the multiple uses of the budget, including role in fiscal policy and resource allocation, the roles and relationships of major participants, and effects of resource scarcity on budgeting behavior. Emphasis on the federal level.

0101	Samuel McCann	Seats (Total: 20)
	W 4:15pm - 6:45pm	JMZ 1224

PLCY720 **International Security Policy**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY720 or PUAF720. Formerly: PUAF720.

Reviews the principal features of international security as currently practiced. Traces the evolution of contemporary policy beginning with the initiation of nuclear weapons programs during World War II. Particular emphasis is given to experience of the United States and Russia, since the historical interaction between these two countries has disproportionately affected the international security conditions that all other countries now experience.

0101	Nancy Gallagher	Seats (Total: 20)
	Tu 1:30pm - 4:00pm	LEF 1221

PLCY734 **Foundations of Social Policy**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in a major in PLCY-School of Public Policy. Credit only granted for: PLCY734 or PUAF734. Formerly: PUAF734.

Provides an overview of government's role in social policy and the history of the development of federal and state policies with respect to welfare, aging, education, and housing. Analyzes current federal institutions and legislation in the same policy areas and the demographic history of the United States. Develops skills in analytic writing and presentation of descriptive data.

0101	Shanna Pearson	Seats (Total: 20)
	M 4:15pm - 6:45pm	TYD 1132

PLCY740 **Public Policy and the Environment**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY740 or PUAF740. Formerly: PUAF740.

Surveys of major federal environmental legislation; the development and implementation of laws, and alternative ways of thinking about the relationship between humans and the environment.

0201	William Piermattei	Seats (Total: 18)
	Th 4:15pm - 6:45pm	SQH 1123

PLCY742 **Environmental Ethics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLYC742 or PUAF742. Formerly: PUAF742.

Analyzes issues such as the relation between human beings and nature from the perspectives of the science, history, philosophy, and religion. Considers the bases for policies such as environmental regulation, public lands, and international conventions with respect to the environment.

0101	Thomas Hilde	Seats (Total: 22)
	Th 7:00pm - 9:30pm	KNI 1206

PLCY745 **Human Health and Environmental Policy**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: PLCY745 or PUAF745. Formerly: PUAF745.

Reviews the major human physiological systems and their integrated toxicological functions; considers key bodily defenses; and discusses classic, emerging, and ambiguous risks; in all ecological context. Applies to scientific controversy, the methods of policy formation, such as risk analysis, social-cost analysis, "outcomes" analysis, and decision analysis, all in political-economic context.

0101	Robert Sprinkle	Seats (Total: 24)
	W 4:15pm - 6:45pm	ASY 3203

PLCY752 **Managing Differences:Resolving Conflict and Negotiating Agreements**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY752 or PUAF752. Formerly: PUAF752.

Enhances the student's negotiation and leadership skills for managing differences between individuals and groups. Students study the nature of conflict, learn how to handle two and multiparty conflicts, exerting leadership where there are no hierarchy leaders, and explore the impact of facilitators and mediators on the negotiating process. Blends skill building exercises and theory discussions about the behavior of groups and individuals in groups to understand negotiation dynamics.

Contact department for information to register for this course.

PLCY780 **The American Foreign Policy-Making Process**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY780 or PUAF780. Formerly: PUAF780.

Survey and analysis of the governmental institutions and processes which shape U.S. global engagement on national security and international economic issues. Particular emphasis is given to executive-congressional relations and the broader domestic roots of foreign policy.

0201	Aaron Mannes	Seats (Total: 25)
	W 4:15pm - 6:45pm	SQH 1103

PLCY781 **International Economic Policy**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY781 or PUAF781. Formerly: PUAF781.

Issues and choices facing the United States in today's global economy. Primary, but not exclusive, emphasis is given to "competitive interdependence" among advanced industrial societies.

0101	Cynthia Boruchowicz	Seats (Total: 33)
	M 7:00pm - 9:30pm	ASY 3207

PLCY782 **International Development Economics**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PUAF698U, PUAF782 or PLCY782. Formerly: PUAF698U and PUAF782.

Examines key current economic and policy issues for developing and transition economies. Topics include inflation stabilization, fiscal policy, selected trade issues, dealing with international capital flows, the role of multilateral organizations, such as the International Monetary Fund and the World Bank, and issues relating to saving, investment and growth.

0101	Susan Parker W 1:30pm - 4:00pm	Seats (Total: 42) PHY 1402
CA01	Susan Parker W 1:30pm - 4:00pm	Seats (Total: 7) PHY 1402

PLCY790 **Project Course**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY790 or PUAF790. Formerly: PUAF790.

Students work at a sponsoring government agency or private firm researching problem of interest to sponsor and relevant to concentration. Emphasis on problem definition, organizing information, and both oral and written presentation of results.

For students taking evaluation-based IDEV project course.

0201	Douglas Besharov, Douglas Call Th 4:15pm - 6:45pm *Evaluation, performance measurement, and economic analysis projects (fo students in any specialization). Must have taken or be taking PLCY689E, Program Evaluation and Cost-Benefit Analysis.*	Seats (Total: 30) TWS 1100
0311	Ryna Yiyun Cui, Mengye Zhu Th 1:30pm - 4:00pm *For students with sustainability-based projects.*	Seats (Total: 16) SQH 1125
0401	Karin Johnston, Mark Troutman, Mark Young Th 1:30pm - 4:00pm *For students with international security policy projects.*	Seats (Total: 24) LEF 1171
0501	Naoko Aoki, Matthew Regan Th 1:30pm - 4:00pm *For students with non-evaluation-based international development projects.*	Seats (Total: 22) VMH 1107

0521	Joan Dubinsky	Seats (Total: 17)
	Tu 9:15am - 11:45am	WDS 1127
	Evaluation, management, leadership, non-profit.	

PLCY798A **Readings in Public Policy**

Credits: 1-3 Grading Method: Regular, Audit

Guided readings for discussions on public policy.

Contact department for information to register for this course.

PLCY798B **Readings in Public Policy**

Credits: 1-3 Grading Method: Regular, Audit

Guided readings for discussions on public policy.

Contact department for information to register for this course.

PLCY798P **Readings in Public Policy; Data Analysis for Policy Makers**

Credits: 3 Grading Method: Regular, Audit

Guided readings for discussions on public policy.

0101	Charles Harry	Seats (Total: 22)
	M 1:30pm - 4:00pm	EDU 1315

PLCY798T **Readings in Public Policy; Sustainable Development, Democracy and Human Rights in Peru**

Credits: 3 Grading Method: Regular, Audit

Guided readings for discussions on public policy.

Contact department for information to register for this course.

PLCY798Y **Readings in Public Policy; Nonprofit Management and Leadership**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Guided readings for discussions on public policy.

0101	Jeffrey Franco	Seats (Total: 8)
	W 6:30pm - 9:00pm	ONLINE

PLCY898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

PLCY899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

PLSC Plant Sciences Spring 2022

PLSC110 **Introduction to Horticulture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSNL (if taken with PLSC111), DSNS

Credit only granted for: PLSC100 or PLSC110 and PLSC111. Formerly: PLSC100.

An overview to the art and science of horticulture. Relationships between plant science and plant production, the use of horticultural plants and plant stress as influenced by cultural practices.

0101	Diana Cochran	Seats (Total: 161)
	TuTh 11:00am - 12:15pm	ESJ 2208

PLSC111 **Introduction to Horticulture Laboratory**

Credits: 1 Grading Method: Regular, Pass-Fail

Corequisite: PLSC110 or permission of the Department of Plant Science and Landscape Architecture.

The goal of this course is to expand your knowledge of the growth and development of horticultural crops. An integrated understanding of horticulture will come from laboratory experiments and field trips. This course is designed to complement lecture material from PLSC 110.

Students must pay a $50.00 lab materials fee.

0101	Diana Cochran	Seats (Total: 23)	
	M 9:00am - 12:20pm	PLS 1153	Lab

0102	Diana Cochran M 1:00pm - 4:20pm	Seats (Total: 23) PLS 1153	Lab
0103	Diana Cochran Tu 12:30pm - 3:50pm	Seats (Total: 23) PLS 1153	Lab
0104	Diana Cochran W 9:00am - 12:20pm	Seats (Total: 23) PLS 1153	Lab
0105	Diana Cochran W 1:00pm - 4:20pm	Seats (Total: 23) PLS 1153	Lab
0106	Diana Cochran Th 12:30pm - 3:50pm	Seats (Total: 23) PLS 1153	Lab

PLSC226 **Plant Diversity**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PLSC201; or permission of instructor.

Students will learn to identify and understand relationships among major plant families of northeastern North America, especially of the Mid-Atlantic region, through lecture, field, and laboratory study. Characteristics and biogeography of and evolutionary relationships among families are emphasized in lecture. These characteristics will be woven together to provide understanding of the ecological and evolutionary drivers of plant diversity and the history of the field. Sight identification of families, genera, and species and keying skills are stressed in field and laboratory sessions.

0101	Maile Neel TuTh 12:30pm - 1:45pm Th 9:30am - 12:20pm	Seats (Total: 10) PLS 1162 PLS 1153	Lab

PLSC250 **Lawns in the Landscape: Environmental Hero or Villain?**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSNS, SCIS

Cross-listed with ENSP250. Credit only granted for: ENSP250 or PLSC250.

Examination of the lawn as an element in the anthropogenic landscape and its influence on global warming, regional air and water quality, ecological diversity, mammalian pesticide exposure and consumptive water use. Demographic and socioeconomic factors are examined in the context of being predictors of landscape aesthetic desires and lawn management behaviors. Policies that incentivize lawn alternatives or changes in lawn management behavior are discussed.

0101	Mark Carroll MW 4:00pm - 5:15pm	Seats (Total: 25) SYM 0209	

PLSC251 **Financial Applications for the Green Industry**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Credit only granted for: PLSC361 or PLSC251. Formerly: PLSC361.

An introduction to the application of financial principles in the Green Industry business sector. Accounting, pricing, and estimating, job cost management and production efficiency are discussed and manifested in Scholarship In Practice exercises, case studies and a business plan project.

0101	Dora Cortez, Steven Cohan Class time/details on ELMs	Seats (Total: 40) ONLINE	

PLSC254 **Woody Plants for Mid-Atlantic Landscape II**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PLSC110, PLSC111, and PLSC253; or permission of instructor.

A field and laboratory study of trees, shrubs, and vines used in ornamental plantings. Major emphasis is placed on introduced and evergreen plant materials.

0101	Karen Petroff WF 12:00pm - 12:50pm F 1:00pm - 3:50pm	Seats (Total: 24) PLS 1140 PLS 1153	Lab
0102	Karen Petroff WF 12:00pm - 12:50pm F 1:00pm - 3:50pm	Seats (Total: 24) PLS 1140 Location: TBA	Lab

PLSC271 **Plant Propagation**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PLSC110 and PLSC111; or (BSCI170 and BSCI171).

A study of the principles and practices in the propagation of plants.

0101	Gary Coleman	Seats (Total: 12)	
	MW 3:00pm - 3:50pm	PLS 1117	
	M 4:00pm - 5:50pm	PLS 1117	Lab
0102	Gary Coleman	Seats (Total: 12)	
	MW 3:00pm - 3:50pm	PLS 1117	
	W 4:00pm - 5:50pm	PLS 1117	Lab

PLSC275 **Fundamentals of Agricultural Chemistry**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM131 and CHEM132; and (PLSC110 and PLSC111); or (PLSC112 and PLSC113); or (BSCI160 and BSCI161); or (BSCI170 and BSCI171); or PLSC100 or PLSC101. Restriction: Must not have completed CHEM104 or CHEM105; and must be in a major within the AGNR-College of Agriculture and Natural Resources; or permission of instructor. Credit only granted for: PLSC275, CHEM104, or CHEM105.

An in-depth discussion of chemistry targeted to students enrolled in plant and animal management curricula offered in AGNR. Covers the nomenclature and basic functional groups in organic chemistry, secondary plant metabolites, basic tenets of organic agriculture and the creation of genetically-modified plants. The chemistry, handling and usage of agricultural pesticides is also discussed.

0101	Wendy Peer	Seats (Total: 36)
	Class time/details on ELMs	ONLINE
	Class time/details on ELMs	ONLINE
	F 10:00am - 10:50am	PLS 1119

PLSC303 **Global Food Systems**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DSNS

Prerequisite: BSCI170 and BSCI171; or BSCI105; or students who have taken courses with comparable content may contact the department.

An introduction to the global food system and its agricultural, biophysical, and socioeconomic domains. The problems and potentials for increasing world food supply based on current agronomic knowledge. Emphasis on international aspects of food crop production as its interrelationships with people and the environment in the developing world.

0101	Kate Tully TuTh 12:30pm - 1:45pm *Restricted to 0101B majors only.*	Seats (Total: 10) PLS 1164
0102	Kate Tully TuTh 12:30pm - 1:45pm *Restricted to non-0101B majors, all other majors allowed.*	Seats (Total: 10) PLS 1164

PLSC388 **Honors Thesis Research**

Credits: 3-6 Grading Method: Regular, Pass-Fail, Audit

Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

0101	Instructor: TBA Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 10)

PLSC399 **Special Problems in Plant Science**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Research projects in Plant Science including field, greenhouse, laboratory, studio and/or library studies. Research is conducted under the direction of a faculty member.

Contact department for information to register for this course.

PLSC400 **Plant Physiology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI170 and BSCI171; or BSCI105; or PLSC201. And CHEM231 and CHEM232; or CHEM237. Cross-listed with: BSCI442. Credit only granted for: BSCI442 or PLSC400.

An in-depth examination of the unique molecular and physiological principles necessary to understand how plants grow and respond to the environment at the cellular and organismal levels. Plants evolved unique metabolism and survival strategies, so students should be prepared to enter a world that may be new to them.

0101	Angus Murphy, Jose Feijo MWF 1:00pm - 1:50pm Tu 9:00am - 12:00pm	Seats (Total: 24) PLS 1140 PLS 1153	 Lab
0102	Angus Murphy, Jose Feijo MWF 1:00pm - 1:50pm Tu 4:30pm - 7:30pm	Seats (Total: 24) PLS 1140 PLS 1153	 Lab

PLSC407 **Advanced Crop Science**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PLSC112, PLSC113, BSCI160, BSCI161, and MATH113 or higher. Recommended: ANSC101. Credit only granted for: PLSC407 or AGST400. Formerly: PLSC407. Additional information: There will be two required Saturday field trips during the semester. Because of the changing nature of agriculture, the dates of these field trips will be decided upon at the beginning of the semester by discussion among the students and based on cooperators availability and environmental factors. Students will have a minimum of two weeks notice as to the dates of the field trips.

Focuses on the study of the agronomic principles and practices required for the production of food, feed, fiber and fuel crops. This is a project-based course where students will develop a farm plan from knowledge gained in previous courses and built upon in this course. Students will learn to integrate data and information from many sources in order to build and operate a successful and sustainable agronomic farm operation using current and new technology. The use of farm management software will be an integral part of the course and farm project.

0101	Bill Phillips MW 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 20) PLS 2137 ONLINE	

PLSC411 **Plant genetics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI170; and BSCI171. Or PLSC201; or permission of AGNR-Plant Science & Landscape Architecture department.

An introduction to genetic principles and technologies in plants, centered on linking phenotype to genotype. Topics include Mendelian inheritance of single and complex traits, epigenetics, population genetics and plant breeding. Examples on creating and mapping genetic mutations in both model plants and non-model crops are discussed. Current genetic and genomic approaches are highlighted, such as genome engineering and reprogramming, TILLING, and genome-wide association mapping.

0101	Jianhua Zhu, Vijay Tiwari MWF 11:00am - 11:50am	Seats (Total: 25) PLS 1146

PLSC425 **Green Roofs and Urban Sustainability**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: PLSC425 or PLSC489V. Formerly: PLSC489V.

The integration of disciplines associated with sustainability issues. Topics range from plant science to design to policy, all of which can contribute to improving the urban environment.

0101	Andrew Ristvey, John Lea-Cox Tu 11:00am - 12:15pm	Seats (Total: 65) PLS 1130

PLSC432 **Greenhouse Crop Production**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PLSC201 .

The commercial production and marketing of ornamental plant crops under greenhouse, plastic houses and out-of-door conditions. Integrating an understanding of basic plant physiological mechanisms into the decision-making process for the design, construction, maintenance and day-to-day management of greenhouse operations.

0101	John Lea-Cox TuTh 3:30pm - 4:45pm Th 5:00pm - 6:45pm	Seats (Total: 20) PLS 1146 RGC 1111	 Lab

PLSC452 **Environmental Horticulture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PLSC110 and PLSC111 or (PLSC112 and PLSC113); and (PLSC253 and PLSC254).

Environmental horticulture principles used in the establishment and maintenance of plant materials in residential and commercial landscapes will be addressed. The effect of soil conditions, environmental factors, and commercial practices will be discussed in relation to the growth and development of newly-installed plant materials. Field diagnostics will be used by students to assess significant problems of plant decline. Environmental sustainability will be combined with current commercial practices of storm water management, nutrient management, and irrigation management to achieve an integrated approach to plant management.

0101	Diana Cochran	Seats (Total: 20)	
	MW 9:00am - 9:50am W 10:00am - 12:50pm	PLS 1117 PLS 1117	 Lab

PLSC460 **Application of Knowledge in Plant Sciences**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: CS | General Education: DSSP

Prerequisite: PLSC110 and PLSC111; or (PLSC112 and PLSC113); or PLSC201; or permission of instructor. Recommended: ENGL393 and ENST200; and (PLSC389 or PLSC399). Restriction: Senior standing or higher.

A capstone course based on interactions with plant science professionals and student-led class discussions. Students will apply their knowledge and experience to practical issues in the discipline, further develop critical thinking ability, and enhance their communication, teamwork, and professional skills. Topics will include nutrient management, integrated pest management, plant interactions with urban and rural ecosystems, planning of public grounds, plant biotechnology, and teaching skills.

0101	Bill Phillips, John Erwin	Seats (Total: 30)	
	W 2:00pm - 2:50pm F 2:00pm - 4:50pm	ANS 0408 ANS 0408	

PLSC489O **Special Topics in Plant Science; Plant Taxonomy**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

A lecture and or laboratory series organized to study a selected phase of Plant Science not covered by existing courses. Credit according to time scheduled and organization of the course.

0101	Maile Neel	Seats (Total: 10)	
	TuTh 12:30pm - 1:45pm Th 9:30am - 12:20pm	PLS 1162 PLS 1153	 Lab

PLSC608T **Research Methods; Supervised Teaching**

Credits: 2 | Grading Method: Regular, Audit

An overview of research methods and applications related to plant sciences. Topics covered include current research advances, professional conduct and ethics, and preparation of grant proposals, manuscripts, and scientific presentations.

7501	Wendy Peer	Seats (Total: 5)
	Contact instructor or department for details.	

PLSC618 **Advances in Research; Critiquing Primary Plant Science Literature**

Credits: 1 Grading Method: Regular, Audit

Discussion of advances in plant science research based on classic and current scientific literature.

0101	James Culver	Seats (Total: 15)
	Tu 3:30pm - 4:45pm	PLS 1164

PLSC619 **Seminars in Plant Science and Landscape Architecture**

Credits: 1 Grading Method: Regular, Audit

Enhancement of student learning and enrichment of student curriculum for the Plant Science Graduate Program through a combination of research seminar attendance and post-seminar discussion. Research seminars will be given by prominent scientists in the field of plant sciences and post-seminar discussions will be facilitated by the instructor along with student discussion leaders.

0101	Macarena Farcuh Yuri, Nidhi Rawat	Seats (Total: 60)	
	M 12:00pm - 12:50pm Class time/details on ELMs	PLS 1140 ONLINE	 Discussion

PLSC689F **Special Topics; Biogeochemistry**

(Perm req)

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

Cross-listed with ENTM699P. Credit only granted for PLSC689F or ENTM699P. This course will cover advanced concepts in biogeochemistry including element cycling in terrestrial and aquatic systems, microbial metabolism, redox chemistry, and human impacts on managed and natural systems. Students will be required to lead discussions of the primary literature, prepare presentations, and present their scientific manuscripts for review and discussion.

0101	Margaret Palmer, Kate Tully	Seats (Total: 12)
	M 10:00am - 11:30am	Location: TBA

PLSC789M **Advances in Research; Plant Membrane Biology**

Credits: 1

Grading Method: Regular, Audit

Discussion of advances in plant science research based on classic and current scientific literature.

0101	Angus Murphy, Wendy Peer Contact instructor or department for details.	Seats (Total: 10)

PLSC799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

PLSC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

PLSC899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

PORT Portuguese Spring 2022

PORT203 **Intensive Intermediate Portuguese**

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PORT103 or PORT104; or must have appropriate Foreign Language Placement Test (FLPT) score. Credit only granted for: PORT203 or PORT204. Formerly: PORT204.

Covers speaking, reading, writing, listening, and culture of Portuguese-speaking world.

0101	Barbara Zocal Da Silva TuTh 11:00am - 12:15pm W 11:00am - 11:50am	Seats (Total: 20) JMZ 1117 LEF 1201

PORT332 **Brazilian Cinema**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DSHU

Cross-listed with: CINE332. Credit only granted for: PORT332, CINE332, or FILM332. Formerly: FILM332.

Brazilian films from the late 1950s to the present with a special view to the relationship between cinema, society, historical dates, and social changes in Brazil. Taught in English.

0101	Thayse Lima	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	JMZ 2122

PORT386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Restriction: Permission of ARHU-School of Languages, Literatures, and Cultures department; and junior standing or higher.

Contact department for information to register for this course.

PORT399 **Independent Study in Portuguese**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Specific readings in literature under the supervision of a faculty member of the department.

Contact department for information to register for this course.

PORT405 **Portuguese for Spanish Speakers**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must have native or acquired fluency in Spanish.

Intensive basic grammar, reading and auditory comprehension. Native or acquired fluency in Spanish required.

0101	Thayse Lima	Seats (Total: 15)
	TuTh 3:30pm - 4:45pm	JMZ 1124

PORT699 **Independent Study of Portuguese**

Credits: 1-3 Grading Method: Regular, Audit

This course is designed to provide graduate students an opportunity to pursue independent study under the supervision of a member of the department.

Contact department for information to register for this course.

PSYC Psychology Spring 2022

The following courses may involve the use of animals. Students who are concerned about the use of animals in teaching have the responsibility to contact the instructor, prior to course enrollment, to determine whether animals are to be used in the course, whether class exercises involving animals are optional or required and what alternatives, if any, are available. The Department of Psychology enforces course prerequisites. Students who do not meet the course prerequisites will be administratively dropped from the course.

PSYC100 **Introduction to Psychology**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SB	General Education: DSHS, DSNS

A basic introductory course intended to bring the student into contact with the major problems confronting psychology and the more important attempts at their solution.

Discussion sections do not meet until after first lecture. Research requirement: may involve participation in research.

Click here for course syllabus.

0101	Benjamin Jones W 4:00pm - 5:20pm Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 30) BRB 1101 ONLINE BPS 1236	Discussion
0102	Benjamin Jones W 4:00pm - 5:20pm Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 30) BRB 1101 ONLINE BPS 1238	Discussion
0103	Benjamin Jones W 4:00pm - 5:20pm Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 30) BRB 1101 ONLINE BPS 1236	Discussion
0104	Benjamin Jones W 4:00pm - 5:20pm Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 30) BRB 1101 ONLINE BPS 1228	Discussion
0105	Benjamin Jones W 4:00pm - 5:20pm Class time/details on ELMs F 2:00pm - 2:50pm	Seats (Total: 30) BRB 1101 ONLINE BPS 1238	Discussion

0106	Benjamin Jones W 4:00pm - 5:20pm Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 30) BRB 1101 ONLINE BPS 1236	Discussion
0107	Benjamin Jones W 4:00pm - 5:20pm Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 30) BRB 1101 ONLINE BPS 1238	Discussion
0108	Benjamin Jones W 4:00pm - 5:20pm Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 30) BRB 1101 ONLINE BPS 1236	Discussion
0109	Benjamin Jones W 4:00pm - 5:20pm Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 30) BRB 1101 ONLINE BPS 1228	Discussion
0110	Benjamin Jones W 4:00pm - 5:20pm Class time/details on ELMs F 2:00pm - 2:50pm	Seats (Total: 30) BRB 1101 ONLINE BPS 1238	Discussion
0201	Rachel VanDaalen Th 3:30pm - 4:50pm Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 30) BRB 1101 ONLINE BPS 0283	Discussion
0202	Rachel VanDaalen Th 3:30pm - 4:50pm Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 30) BRB 1101 ONLINE BPS 1232	Discussion
0203	Rachel VanDaalen Th 3:30pm - 4:50pm Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 30) BRB 1101 ONLINE BPS 0283	Discussion

0204	Rachel VanDaalen Th 3:30pm - 4:50pm Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 30) BRB 1101 ONLINE BPS 0283	Discussion
0205	Rachel VanDaalen Th 3:30pm - 4:50pm Class time/details on ELMs F 2:00pm - 2:50pm	Seats (Total: 30) BRB 1101 ONLINE BPS 1228	Discussion
0206	Rachel VanDaalen Th 3:30pm - 4:50pm Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 30) BRB 1101 ONLINE BPS 0283	Discussion
0207	Rachel VanDaalen Th 3:30pm - 4:50pm Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 30) BRB 1101 ONLINE BPS 1232	Discussion
0208	Rachel VanDaalen Th 3:30pm - 4:50pm Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 30) BRB 1101 ONLINE BPS 0283	Discussion
0209	Rachel VanDaalen Th 3:30pm - 4:50pm Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 30) BRB 1101 ONLINE BPS 0283	Discussion
0210	Rachel VanDaalen Th 3:30pm - 4:50pm Class time/details on ELMs F 2:00pm - 2:50pm	Seats (Total: 30) BRB 1101 ONLINE BPS 1228	Discussion
0301	Dirk Parham MW 2:00pm - 2:50pm Class time/details on ELMs	Seats (Total: 40) ONLINE ONLINE	Discussion

PSYC123 The Psychology of Getting Hired

Credits: 1

Grading Method: Regular, Pass-Fail

Restriction: Must not be in a Robert H. Smith School of Business degree program. Additional information: Cannot be used in place of BMGT367 toward a degree program in the Robert H. Smith School of Business.

Designed to introduce students to the science behind the hiring process and to prepare individuals with the academic and practical training required. Together we will explore psychological principles that influence the selection process and how individuals can apply them for the competitive edge that makes others Fear the Turtle!

0101	Erica Ely Class time/details on ELMs	Seats (Total: 100) ONLINE	
0201	Erica Ely Class time/details on ELMs	Seats (Total: 100) ONLINE	
0301	Erica Ely Class time/details on ELMs	Seats (Total: 100) ONLINE	
0401	Erica Ely Class time/details on ELMs	Seats (Total: 100) ONLINE	

PSYC200 **Statistical Methods in Psychology**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: FSAR

Prerequisite: PSYC100; and 1 course with a minimum grade of C- from (STAT100, MATH107, MATH111, MATH120, MATH130, MATH136, or MATH140). Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201.

A basic introduction to quantitative methods used in psychological research.

Restricted to PSYC, ENSP, BSCI, and NEUR majors.

Click here for course syllabus.

0101	Benjamin Jones TuTh 8:00am - 9:15am Class time/details on ELMs M 9:00am - 9:50am	Seats (Total: 30) BPS 1250 ONLINE BPS 1238	 Discussion

0102	Benjamin Jones TuTh 8:00am - 9:15am Class time/details on ELMs M 10:00am - 10:50am	Seats (Total: 30) BPS 1250 ONLINE BPS 1238	 Discussion
0103	Benjamin Jones TuTh 8:00am - 9:15am Class time/details on ELMs M 11:00am - 11:50am	Seats (Total: 30) BPS 1250 ONLINE BPS 1238	 Discussion
0104	Benjamin Jones TuTh 8:00am - 9:15am Class time/details on ELMs M 1:00pm - 1:50pm	Seats (Total: 30) BPS 1250 ONLINE BPS 1238	 Discussion
0105	Benjamin Jones TuTh 8:00am - 9:15am Class time/details on ELMs M 2:00pm - 2:50pm	Seats (Total: 30) BPS 1250 ONLINE BPS 1238	 Discussion
0201	Benjamin Jones TuTh 9:30am - 10:45am Class time/details on ELMs M 9:00am - 9:50am	Seats (Total: 20) BPS 1243 ONLINE BPS 1228	 Discussion
0202	Benjamin Jones TuTh 9:30am - 10:45am Class time/details on ELMs M 10:00am - 10:50am	Seats (Total: 20) BPS 1243 ONLINE BPS 1232	 Discussion
0203	Benjamin Jones TuTh 9:30am - 10:45am Class time/details on ELMs M 11:00am - 11:50am	Seats (Total: 20) BPS 1243 ONLINE BPS 1232	 Discussion
0204	Benjamin Jones TuTh 9:30am - 10:45am Class time/details on ELMs M 1:00pm - 1:50pm	Seats (Total: 20) BPS 1243 ONLINE BPS 1232	 Discussion

0205	Benjamin Jones TuTh 9:30am - 10:45am Class time/details on ELMs M 2:00pm - 2:50pm	Seats (Total: 20) BPS 1243 ONLINE BPS 1232	 Discussion

PSYC202 **Introduction to Neuroscience**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNS

Prerequisite: Minimum grade of C- in BSCI170 and BSCI171. Cross-listed with: NEUR200. Credit only granted for: PSYC309U, NEUR200, PSYC202 or PSYC301. Formerly: PSYC309U.

In an evolutionary sense, the job of the nervous system is to produce, control, and coordinate behaviors that help an animal survive and reproduce. Neuroscience is the study of how the nervous system does that. Provides a broad introduction to neuroscience, always keeping the behavioral consequences in view.

0101	David Yager TuTh 9:30am - 10:45am	Seats (Total: 150) BPS 1250
0201	Ana Navarro Cebrian TuTh 2:00pm - 3:15pm	Seats (Total: 75) PLS 1140

PSYC207 **Collective Behavior and Decision Making in Human and Animal Groups**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100.

Overview of the fundamental principles underlying the organization of animal societies, mathematical models describing these phenomena, and applications to human societies and decision-making. Students will engage in discussions of case studies, analyze and evaluate mathematical simulations, and apply what they have learned from animal groups to practice solving problems currently facing human society.

Restricted to students in PSYC and NEUR majors only.

0101	Amanda Chicoli MW 3:30pm - 4:45pm	Seats (Total: 50) ATL 2428

PSYC210 **Personality and Temperament: Developmental Origins, Brain Bases, and Clinical Implications**

Credits: 3 | Grading Method: Regular, Pass-Fail

Prerequisite: PSYC100. Restriction: Must be in Psychology program.

What is known about what makes each of us unique? How do these differences contribute to enduring differences in health & wealth? We will review recent research in humans and non-humans aimed at understanding the psychological & biological mechanisms underlying stable individual differences in personality. We will discuss the phylogenetic and ontogenetic origins of temperament, measurement issues, fundamental dimensions of personality across the lifespan, neurobiological substrates of temperament/personality, mechanisms contributing to stability and change, implications for psychopathology, & broader implications for public/macroeconomic policy.

Restricted to PSYC students only.

0101	Alexander Shackman MW 5:00pm - 6:15pm	Seats (Total: 117) BPS 1250	

PSYC221 **Social Psychology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS, DSSP

Prerequisite: PSYC100.

The influence of social factors on the individual and on interpersonal behavior. Includes topics such as conformity, attitude change, personal perception, interpersonal attraction, and group behavior.

Click here for course syllabus.

0101	Linda Zou MW 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 150) ESJ 1224 ESJ 1224	 Discussion
0201	Molly Ellenberg TuTh 11:00am - 12:15pm	Seats (Total: 150) BPS 1250	

PSYC234 **Living the Good Life: The Psychology of Happiness**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Credit only granted for: PSYC234 or PSYC289D. Formerly: PSYC289D.

What are the secrets to living a happy life? Can happiness be found within the context of war, a depressed economy, violence and other major stressors? Are some people born happier than others? This course will teach you the scientific process that psychologists use to study happiness (and related emotional variables) and give you the opportunity to practice applying that process in a number of ways. You will learn how we (a) gather and critically evaluate research findings in the existing literature, (b) integrate those findings into coherent and testable theories, (c) design and conduct valid scientific research that tests those theories and extends our knowledge, and (d) effectively communicate our theories and findings to a wide range of audiences. The result of the process is a more accurate and objective understanding of happiness, and that is what prepares you to apply your scientific understanding to explain and influence a wide range of outcomes.

0101	Carole Sebenick TuTh 2:00pm - 3:15pm	Seats (Total: 140) ESJ 0224	
0201	Rachel VanDaalen MW 3:00pm - 4:15pm	Seats (Total: 100) BPS 1243	

PSYC300 **Research Methods in Psychology Laboratory**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Prerequisite: PSYC200. Restriction: Must be in Psychology program.

A general introduction and overview to the fundamental theoretical, conceptual, and practical issues in psychological research in both the laboratory and the field.

Restricted to students in PSYC and NEUR majors only.

Click here for course syllabus.

0101	Tracy Tomlinson TuTh 8:00am - 9:15am Th 2:00pm - 3:50pm	Seats (Total: 16) CCC 1205 BPS 1238	Discussion
0102	Tracy Tomlinson TuTh 8:00am - 9:15am Th 4:00pm - 5:50pm	Seats (Total: 16) CCC 1205 BPS 1236	Discussion
0103	Tracy Tomlinson TuTh 8:00am - 9:15am F 8:00am - 9:50am	Seats (Total: 16) CCC 1205 BPS 1228	Discussion

0104	Tracy Tomlinson TuTh 8:00am - 9:15am F 10:00am - 11:50am	Seats (Total: 16) CCC 1205 BPS 0283	Discussion
0105	Tracy Tomlinson TuTh 8:00am - 9:15am F 12:00pm - 1:50pm	Seats (Total: 16) CCC 1205 BPS 1236	Discussion
0106	Tracy Tomlinson TuTh 8:00am - 9:15am F 2:00pm - 3:50pm	Seats (Total: 16) CCC 1205 BPS 1236	Discussion
0201	Tracy Tomlinson TuTh 9:30am - 10:45am Th 2:00pm - 3:50pm	Seats (Total: 16) CCC 1205 BPS 1234	Discussion
0202	Tracy Tomlinson TuTh 9:30am - 10:45am Th 4:00pm - 5:50pm	Seats (Total: 16) CCC 1205 BPS 1234	Discussion
0203	Tracy Tomlinson TuTh 9:30am - 10:45am F 8:00am - 9:50am	Seats (Total: 16) CCC 1205 BPS 1234	Discussion
0204	Tracy Tomlinson TuTh 9:30am - 10:45am F 10:00am - 11:50am	Seats (Total: 16) CCC 1205 BPS 0140	Discussion
0205	Tracy Tomlinson TuTh 9:30am - 10:45am F 12:00pm - 1:50pm	Seats (Total: 16) CCC 1205 BPS 1232	Discussion
0206	Tracy Tomlinson TuTh 9:30am - 10:45am F 2:00pm - 3:50pm	Seats (Total: 16) CCC 1205 BPS 1232	Discussion

PSYC302 **Fundamentals of Learning and Behavior**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100, BSCI170, and BSCI171. Restriction: Restricted to psychology majors during the registration period; all other majors will be placed on a hold file.

Overview of the fundamental types of learning that occur without formal instruction. The course covers fundamentals of classical and instrumental conditioning as studied in a variety of species in addition to more modern theories of learning. We will then explore how these principles influence diverse processes such as memory, attention, extinction, categorization, motivation, and in some cases, how they are implemented in the brain and disrupted in disease.

Restricted to students in PSYC and NEUR majors only.

0101	Matthew Roesch	Seats (Total: 50)
	TuTh 12:30pm - 1:45pm	BPS 1243

PSYC303 **Professional Development for Psychology Majors**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC123; or permission from the instructor with a completed resume. Restriction: Must have earned a minimum of 60 credits; and must be in the Psychology major.

An investigation of various career and graduate school opportunities available to psychology majors. Students will learn about a wide range of career fields, will learn how to utilize available resources to pursue career goals, and will take steps to advance their professional identity and development.

0101	Alexis Foley	Seats (Total: 50)
	Class time/details on ELMs	ONLINE

PSYC304 **Biological Psychology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSNS

Prerequisite: PSYC100, BSCI170 and BSCI171; or equivalent. Credit only granted for: PSYC301 or PSYC304. Formerly: PSYC301.

Biological Psychology is the study of the physiological basis of behavior. In this course, we will first cover the basic principles of brain organization and neural transmission. We will then introduce traditional and modern research techniques in the field of behavioral neuroscience. The last portion of the course focuses on specific topics including psychopharmacology, learning and memory, emotion, stress, drug of abuse, neurological disorders (e.g., Alzheimer's disease and Parkinson's disease) and schizophrenia.

Restricted to PSYC students only.

0101	Ana Navarro Cebrian TuTh 9:30am - 10:45am	Seats (Total: 75) CCC 1100

PSYC309G **Special Topics in Psychology**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Topics of current interest which represent extensions of or additions to topics covered in more general topical courses.

0101	Nazish Salahuddin W 1:00pm - 1:50pm	Seats (Total: 20) BPS 1238

PSYC309L **Special Topics in Psychology; Personality and Social Psychology**

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Topics of current interest which represent extensions of or additions to topics covered in more general topical courses.

Contact department for information to register for this course.

PSYC319D **Community Interventions: Domestic Violence II - Service Learning**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Apply knowledge gained in PSYC318D/PSYC318 to provide interventions to individuals who have experienced domestic violence. Critical analysis of interventions and related research. Ethical and cultural considerations in the provision of services are addressed.

Prereqs: PSYC318D and Permission of Instructor.

0101	Karen O'Brien M 8:30am - 9:45am Contact instructor or department for details. *Students will be responsible for engaging in four hours of community service each week.*	Seats (Total: 12) ESJ B0320

PSYC330 **Child Psychopathology**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100. Restriction: Must be in Psychology program. Credit only granted for: PSYC309B or PSYC330. Formerly: PSYC309B.

Etiology, diagnosis, prevention and treatment of emotional disorders of childhood and adolescence.

Restricted to PSYC students only.

0101	Cameron Massey	Seats (Total: 100)
	MW 4:15pm - 5:30pm	BPS 1243

PSYC332 **Psychology of Human Sexuality**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100.

A survey of historical and contemporary psychological views on a wide variety of sexual behaviors; theory and research bearing on the relationship between life span psychological development, psychological functioning, interpersonal processes and sexual behaviors; political and social issues involved in current sexual norms and practices.

Restricted to PSYC (major code 20010/2001S) students only.

Contact department for information to register for this course.

PSYC336 **Psychology of Women**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DSHS

Prerequisite: PSYC100. Cross-listed with: WGSS336. Credit only granted for: PSYC336, WMST336 or WGSS 336. Formerly: WMST336.

A study of the biology, life span development, socialization, personality, mental health, and special issues of women.

Students will be expected to meet face-to-face during class time to complete small groupwork on 5-6 Fridays during the semester.

Click here for course syllabus.

0101	Monica Kearney	Seats (Total: 110)
	MW 11:00am - 11:50am Class time/details on ELMs	BPS 1250 ONLINE Discussion

PSYC338A **Special Topics in Study Abroad III; Applied Psychology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PSYC338L **Special Topics in Study Abroad III; Psychology of Leadership**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PSYC338N **Special Topics in Study Abroad III; Neuroscience of Fear**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PSYC338P **Special Topics in Study Abroad III; Positive Psychology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PSYC341 **Introduction to Memory and Cognition**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC200 and PSYC300.

An introduction to the basic concepts of cognitive psychology, the scientific study of mental processes. Topics will include perception, attention, memory, reasoning, and language, with an emphasis on how findings from cognitive psychology can inform real-life thinking (e.g., memory strategies for studying, pitfalls of multitasking, and how/why our memories can fail us).

Restricted to students in PSYC and NEUR majors only.

Click here for course syllabus.

0101	Alec Solway	Seats (Total: 117)
	TuTh 12:30pm - 1:45pm	BPS 1250

PSYC344 **Health Psychology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100; or permission of instructor. Restriction: Must be in the Psychology program; or must be in a major within the School of Public Health; or permission of instructor. Credit only granted for: PSYC489U or PSYC344. Formerly: PSYC489U.

An examination of how psychological, biological, and social factors impact physical health and well-being. Students will use the biopsychosocial model to analyze topics including stress, health disparities, pain, addiction, disease states (e.g., cardiovascular disease, diabetes, cancer), and primary prevention.

0101	Rachel VanDaalen	Seats (Total: 75)
	MWF 12:00pm - 12:50pm	ESJ 0215

PSYC353 **Adult Psychopathology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100. Restriction: Must be in Psychology program.

The nature, diagnosis, etiology, and treatment of mental disorders.

Restricted to PSYC majors only.

Click here for course syllabus.

0101	Heather Ganginis DelPino	Seats (Total: 117)
	TuTh 2:00pm - 3:15pm	ESJ 1202

PSYC354 **Multicultural Psychology in the U.S.**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DSHS

Prerequisite: PSYC100.

What are the psychological implications of racism, sexism, homophobia and other structures of inequality in the United States? How do socio-cultural privilege and oppression influence individual and group thoughts, feelings, and behaviors? This course will take a current events focus to understanding multicultural and social justice issues in psychology with an emphasis on self-reflection, mental health, cross-cultural communication, and strategies for social change.

Click here for course syllabus.

0101	Monica Kearney	Seats (Total: 150)	
	MW 10:00am - 10:50am	ESJ 1224	
	Class time/details on ELMs	ONLINE	Discussion

PSYC355 **Developmental Psychology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100.

Survey of research and theory of psychological development from conception through childhood, stressing physiological, conceptual and behavioral changes, and the social and biological context in which individuals develop.

Restricted to PSYC students only.

0101	Elizabeth Redcay	Seats (Total: 150)
	TuTh 11:00am - 12:15pm	ESJ 2204

PSYC361 **Survey of Industrial and Organizational Psychology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100.

A general survey of the field of industrial organizational psychology including such topics as organizational entry (recruitment, selection, training, socialization); organizational psychology (motivation, leadership, job attitudes); productivity in the workplace (performance appraisal, absenteeism, turnover), and the role that the larger environment plays in influencing work behaviors and work attitudes.

Restricted to PSYC students only.

0101	Jennifer Wessel	Seats (Total: 75)
	TuTh 9:30am - 10:45am	TYD 1102

PSYC389 **Experiential Learning**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Internship in psychology-related fields.

A course for undergraduate psychology majors to earn academic credit for an approved psychology-related internship experience. Information about the course may be obtained in BPS1121, or by contacting the instructor. Restricted to PSYC majors only.

0101	Steven Young	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

PSYC404 **Introduction to Behavioral Pharmacology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC202 or NEUR200. Restriction: Must be in Psychology program.

Theoretical viewpoints on the interaction of drugs and behavior. Basic principles of pharmacology, the effects of drugs on various behaviors, experimental analysis of drug dependence and abuse, and neuropharmacology and behavior.

Restricted to students in PSYC and NEUR majors only.

0101	Ana Navarro Cebrian	Seats (Total: 50)
	TuTh 11:00am - 12:15pm	TWS 0310
	Class time/details on ELMs	ONLINE

PSYC406 **Neuroethology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC301, PSYC202 or NEUR200. Restriction: Must be in Psychology program.

A merger between the disciplines of neuroscience and ethology (animal behavior) studies the behavioral functions of nervous systems using a comparative and evolutionary approach. Students will learn how the nervous system controls behavioral patterns in a variety of different organisms ranging from insects to mammals.

Restricted to students in PSYC and NEUR majors only.

0101	Jens Herberholz	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	BPS 1236

PSYC417 **Data Science for Psychology and Neuroscience Majors**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC200 and PSYC300; and (MATH120, MATH130, or MATH140). Credit only granted for: PSYC489D or PSYC417. Formerly: PSYC489D.

A large number of industry and academic jobs require basic programming and data analysis skills. This class represents an introduction to both. Students will learn to program in R and will briefly be introduced to Python, the two most popular programming languages for data science. Common constructs shared by a variety of procedural programming languages will be emphasized. Basic statistics and probability theory will be reviewed from a computational perspective, and more advanced topics introduced. During the course, students will simulate toy data sets which they will then analyze knowing how the data came about, as well as work with real data. The class is highly hands-on with a large number of in-class lab and homework projects. Expect to work a lot and move quickly. Because of the hands-on nature of the class, the overall focus is more on application and execution rather than theory. However, some theory is covered at a high level so that students are aware of why they are doing something, rather than mindlessly writing code.

Restricted to students in PSYC and NEUR majors only with greater than or equal to 85 credits.

0101	Alison Robey TuTh 3:30pm - 5:30pm	Seats (Total: 24) BPS 0283	
0201	Alec Solway MW 1:00pm - 3:00pm	Seats (Total: 24) BPS 0140	

PSYC420 **Experimental Psychology: Social Psychology Laboratory**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC300 and PSYC221. Restriction: Must be in Psychology program; and must have earned a minimum of 85 credits.

A laboratory course to provide a basic understanding of experimental methods in social psychology and experience in conducting research on social processes.

Restricted to PSYC students only.

Click here for course syllabus.

0101	Benjamin Jones MW 10:00am - 10:50am F 12:00pm - 1:50pm	Seats (Total: 16) BPS 1236 HBK 1112	 Lab
0102	Benjamin Jones MW 10:00am - 10:50am F 10:00am - 11:50am	Seats (Total: 15) BPS 1236 BPS 1103	 Lab

0201	Edward Lemay MW 11:00am - 11:50am Th 2:00pm - 3:50pm	Seats (Total: 13) ONLINE BPS 0140	 Lab
0202	Edward Lemay MW 11:00am - 11:50am Th 2:00pm - 3:50pm	Seats (Total: 12) ONLINE BPS 0140	 Lab

PSYC424 **Communication and Persuasion**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Prerequisite: PSYC221 and PSYC200.

Effect of social communication upon behavior and attitudes. Theory and research concerning attitude change and social influence.

ESG1	Edward Pallas M 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 40) BLD3 4215 ONLINE

Registration is restricted to Criminology and Criminal Justice-Shady Grove majors and Biological Sciences - Shady Grove majors. Permission is required for all other students to enroll in courses at Shady Grove. Please email ccjsusg@umd.edu for permission.

PSYC425 **Psychology and Law**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100, PSYC200, and PSYC300. Restriction: Must be in Psychology program. Credit only granted for: PSYC325, or PSYC425.

An introduction to the intersection of psychology and the criminal justice system, known as the field of legal psychology. The material covered will span the course of the criminal justice process and examine each aspect from a psychological perspective beginning with profiling and moving on to eyewitness memory and judgements through perpetrator memories and interrogation techniques. These aspects will be evaluated with a research lens as well as an applied outlook.

0101	Tracy Tomlinson TuTh 12:30pm - 1:45pm	Seats (Total: 30) BPS 1232

PSYC432 **Counseling Psychology: Theories, Research, and Practice**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC200.

Analysis of research and intervention strategies developed and used by counseling psychologists. Historical and current trends in content and methodology.

Restricted to PSYC students only. Students will be expected to engage in asynchronous coursework on Fridays during the semester.

0101	Joann Prosser MW 4:00pm - 4:50pm Class time/details on ELMs	Seats (Total: 78) ESJ 2204 ONLINE	
	Students will be expected to engage in asynchronous coursework on Friday's during the semester.		

PSYC433 Basic Helping Skills: Research and Practice

Credits: 4 | Grading Method: Regular, Pass-Fail

Prerequisite: PSYC300. Restriction: Must be in Psychology program; and must have earned a minimum of 85 credits; and must not have completed or be concurrently enrolled in EDCP 310. Credit only granted for: EDCP210, EDCP310, or PSYC433.

Theories and research regarding effective helping relationships, with a focus on applications to counseling and psychotherapy. Students will practice helping skills with each other and will conduct research projects evaluating their helping skills. Students should be willing to talk about personal issues in class. Attendance in labs is mandatory and contributes to the course grade; thus, students should only enroll in a lab section that they will be able to attend consistently.

Restricted to PSYC students only.

Click here for course syllabus.

0101	Jonathan Mohr M 2:00pm - 3:50pm W 9:00am - 10:50am	Seats (Total: 12) ATL 2324 ONLINE	Lab
0102	Jonathan Mohr M 2:00pm - 3:50pm W 11:00am - 12:50pm	Seats (Total: 12) ATL 2324 ONLINE	Lab

0103	Jonathan Mohr M 2:00pm - 3:50pm W 1:00pm - 2:50pm	Seats (Total: 12) ATL 2324 ONLINE	 Lab
0104	Jonathan Mohr M 2:00pm - 3:50pm W 3:00pm - 4:50pm	Seats (Total: 12) ATL 2324 ONLINE	 Lab
0105	Jonathan Mohr M 2:00pm - 3:50pm W 11:00am - 12:50pm	Seats (Total: 12) ATL 2324 ONLINE	 Lab
0106	Jonathan Mohr M 2:00pm - 3:50pm W 1:00pm - 2:50pm	Seats (Total: 12) ATL 2324 ONLINE	 Lab
0201	Judith Gerstenblith M 12:00pm - 1:50pm F 8:00am - 9:50am	Seats (Total: 12) BPS 1243 ONLINE	 Lab
0202	Judith Gerstenblith M 12:00pm - 1:50pm F 10:00am - 11:50am	Seats (Total: 12) BPS 1243 ONLINE	 Lab
0203	Judith Gerstenblith M 12:00pm - 1:50pm F 12:00pm - 1:50pm	Seats (Total: 12) BPS 1243 ONLINE	 Lab
0204	Judith Gerstenblith M 12:00pm - 1:50pm W 9:00am - 10:50am	Seats (Total: 12) BPS 1243 ONLINE	 Lab
0205	Judith Gerstenblith M 12:00pm - 1:50pm W 3:00pm - 4:50pm	Seats (Total: 12) BPS 1243 ONLINE	 Lab
0206	Judith Gerstenblith M 12:00pm - 1:50pm W 5:00pm - 6:50pm	Seats (Total: 12) BPS 1243 ONLINE	 Lab

PSYC435 Temperament, Personality, and Psychopathology

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC200.

An advanced review of cutting-edge research in humans and animals aimed at understanding the psychological and biological mechanisms underlying stable individual differences in temperament and personality (T&P) and determining their role in adult and child psychopathology, with a major focus on anxiety disorders, depression, and addiction. We will discuss the developmental origins of T&P, measurement issues, fundamental dimensions, heritability, relevance to psychopathology and intervention (treatment and prevention), and broader implications for public policy.

Contact department for information to register for this course.

PSYC436 Introduction to Clinical Psychology: From Science to Practice

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC300.

Critical analysis of clinical psychology, with particular emphasis on current developments and trends.

Restricted to PSYC (major code 20010/2001S) students only.

Click here for course syllabus.

Contact department for information to register for this course.

PSYC437 The Assessment and Treatment of Addictive Behaviors

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100; and 9 credits in PSYC courses.

Explores the current research in assessment and treatment of addictive behaviors. Topics may include addictions in the areas of alcohol, drugs, nicotine, gambling, and eating.

0101	Christopher Seitz-Brown MW 9:00am - 9:50am Class time/details on ELMs	Seats (Total: 63) ESJ 2212 ONLINE	Discussion
	Restricted to College Park students in PSYC and NEUR majors only.		
ESG1	Heidi Bresee Th 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 20) BLD3 3202 ONLINE	
	Restricted to CCJS students at Shady Grove.		

ESG2	Heidi Bresee Th 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 25) BLD3 3202 ONLINE
	Registration is restricted to Biological Sciences - Shady Grove majors. Permission is required for all other students to enroll in courses at Shady Grove. Please email ccjsusg@umd.edu for permission.	

PSYC442 **Psychology of Language**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC300 and PSYC341. Restriction: Must be in Psychology program.

Introductory survey of the psychology of language, focusing on the cognitive processes that enable us to produce and understand language. Topics include speech perception, speech production, syntactic processing, language development, language disorders, and the brain bases of language.

Restricted to PSYC (major code 20010) students only.

Contact department for information to register for this course.

PSYC468H **Field Experience and Special Assignments in Honors**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

An individual experience arranged by the honors student and his or her supervisor. A proposal submitted to the honors faculty in the semester preceding registration for the course should state the activities anticipated and the method of evaluation.

5008	Karen O'Brien Contact instructor or department for details.	Seats (Total: 10)
8001	Robert Slevc Contact instructor or department for details.	Seats (Total: 10)
9108	Derek Iwamoto Contact instructor or department for details.	Seats (Total: 10)
9109	Edward Bernat Contact instructor or department for details.	Seats (Total: 10)
9110	Edward Lemay Contact instructor or department for details.	Seats (Total: 10)

PSYC469H **Honors Thesis Proposal Preparation**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Development of honors thesis proposal by preliminary research and literature review. Presentation of formal proposal to the thesis committee.

Restricted to undergraduate PSYC majors only.

Contact department for information to register for this course.

PSYC478 **Independent Study in Psychology**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Information about independent study may be obtained in BPS 1121. Restricted to PSYC majors (20010) only. The student must have completed 9 hours in PSYC with at least a 3.0 GPA in PSYC and a 2.8 overall GPA.

Contact department for information to register for this course.

PSYC479 **Special Research Problems in Psychology**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Information about research credit may be obtained in BPS 1121. Restricted to PSYC majors (20010) only. The student must have completed 9 hours in PSYC with at least a 3.0 GPA in PSYC and a 2.8 overall GPA.

Contact department for information to register for this course.

PSYC489F **Advanced Special Topics in Psychology; Cultural Experiences and Processes in Development and Psychopathology**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Treatment of a specialized topic in psychology.

Prerequisite: PSYC355 or equivalent. An introduction to the subfield of cultural development and psychopathology, which seeks to understand the cultural risk, protective, and promotive factors that contribute to typical and atypical patterns of development. This course will review the theoretical foundations of developmental psychopathology, contemporary models of culture, and current research on how cultural experiences and processes influence the emergence of adaptation and maladaptation at different levels of the human experience. Restricted to PSYC majors.

0101	Fanita Tyrell	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	BPS 1238

PSYC489G **Advanced Special Topics in Psychology; Hormones and Behavior**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Treatment of a specialized topic in psychology.

Prerequisite: C- or better in BSCI330, NEUR200, or PSYC202. Cross-listing with BSCI338N. Credit only granted for BSCI338N or PSYC489G. A comprehensive overview of the field of behavioral endocrinology, the study of the relationship between hormones and behavior, from a psychobiological perspective. Examine the major mammalian endocrine systems, how hormones influence sex determination, how hormones underlie sex differences in brain structure and function, the role of hormones in parental and social behaviors, mood disorders, homeostasis, cognition, and stress. Both normal and abnormal hormonal pathologies will be discussed. Due to the physiological and experimental perspectives, much of the phenomenology will be based on research in species other than humans. This species comparative approach will reveal interesting "ways of doing things" that are intriguingly different from how "humans do things."

0101	Mary Ann Rankin	Seats (Total: 45)	
	MWF 10:00am - 10:50am	HJP 2242	

PSYC489R **Advanced Special Topics in Psychology; Human and Animal Intelligence**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Treatment of a specialized topic in psychology.

Prerequisites: PSYC300 or permission of the instructor. Students will be expected to engage in asynchronous coursework on Fridays during the semester. Restricted to PSYC and NEUR majors.

0101	Amanda Chicoli	Seats (Total: 50)	
	MW 10:00am - 10:50am	BPS 1243	
	Class time/details on ELMs	ONLINE	Discussion

PSYC489T **Advanced Special Topics in Psychology; The Psychology of Terrorism**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Treatment of a specialized topic in psychology.

Prerequisite: PSYC300. This seminar will cover classic and contemporary approaches to the psychology of terrorism. We will discuss theories of radicalization and deradicalization, as well as empirical data on the motivational, cultural and social aspects of becoming a violent extremist. Restricted to PSYC majors.

0101	A Kruglanski W 3:00pm - 5:30pm	Seats (Total: 25) BPS 1232

PSYC489X **Advanced Special Topics in Psychology; Musical Perception and Cognition**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Treatment of a specialized topic in psychology.

Restricted to students in the PSYC honors program. Please email lkader@umd.edu for permission to register.

0101	Robert Slevc TuTh 9:30am - 10:45am	Seats (Total: 25) BPS 1236

PSYC489Z **Advanced Special Topics in Psychology; Asian American Psychology**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Treatment of a specialized topic in psychology.

Restricted to PSYC majors and students in the Asian American Studies Program only. Cross-listed with AAST498J. Credit only granted for PSYC489Z or AAST498J. This course will increase knowledge regarding how socio-cultural influences impact the development and psychological health of Asian Americans. Students will develop a deeper understanding of the role of stereotypes and racism, acculturation, racial identity development, cultural values, gender socialization, behavioral norms, family roles, stressors, and social support systems have on the mental health, well-being, and health of Asian Americans.

0101	Derek Iwamoto TuTh 12:30pm - 1:45pm	Seats (Total: 60) PLS 1140

PSYC498H **Advanced Psychology II (Honors)**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Seminar covering topics of current interest in psychology.

Restricted to students in the PSYC honors program. Please email lkader@umd.edu for permission to register.

0101	Michael Dougherty Th 4:00pm - 4:50pm	Seats (Total: 20) BPS 1140

PSYC499H **Honors Thesis Research**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

In addition to the department and instructor, the director of the honors program may be contacted to obtain a section number. Prerequisite: permission of the thesis advisor. Permission may be obtained in BPS 1147. Restricted to undergraduate PSYC majors only.

Contact department for information to register for this course.

PSYC602 **Quantitative Methods II**

(Perm req)

Credits: 4 Grading Method: Regular, Audit

Prerequisite: PSYC601.

A continuation of PSYC 601. Topics include experimental design, analysis of variance, analysis of covariance, multiple regression, and general linear models.

For all non-psychology graduate students, written permission of the instructor is required.

0101	Alison Robey	Seats (Total: 18)	
	TuTh 9:00am - 11:00am	BPS 1228	
	Th 5:00pm - 7:00pm	BPS 0140	Lab

PSYC603 **Introduction to Industrial and Organizational Psychology**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: PSYC603 or PSYC730. Formerly: PSYC730.

Advanced survey of industrial-organizational psychology, including selection, training, motivation, group processes, leadership, organizational psychology, and organizational theory. Readings stressed and seminar time will be used for lectures, discussion and integration of the reading materials.

PCI1	Nikita Arun	Seats (Total: 40)
	Meets February 28, 2022 - May 18, 2022	
	M 5:00pm - 9:00pm	ESJ 2212
	Class time/details on ELMs	ONLINE
	Must be in the Industrial/Organizational Psychology (MPS). All other graduate students must request permission. Contact oes@umd.edu.	

PSYC604 **Fundamentals of Social Psychology**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: PSYC604 or PSYC640. Formerly: PSYC640.

A survey of classic and contemporary theories, research and methods in social psychology.

0101	A Kruglanski	Seats (Total: 20)
	W 1:00pm - 3:30pm	HBK 1112

PSYC611 **Advanced Developmental Psychology**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Systematic exploration of contemporary and classic theories of development focusing on the assumptions they make and research they generate.

0101	Tracy Riggins	Seats (Total: 15)
	M 9:30am - 12:00pm	BPS 1103

PSYC622 **Research Methods in Clinical Psychology**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Permission of instructor. Credit only granted for: PSYC622 or PSYC718. Formerly: PSYC718.

Examines issues and strategies in conceptual systems, designs and methodologies of current research in clinical and community psychology. Readings include critical analyses of published research. Course requirements include preparation of a research proposal for a thesis level study.

0101	Christopher Seitz-Brown	Seats (Total: 40)
	W 2:00pm - 4:30pm	BPS 1103

PSYC623 **Child Psychopathology**

Credits: 3 Grading Method: Regular, Sat-Fail

Restriction: Permission of instructor; and must be in one of the following programs (Psychology (Master's); Psychology (Doctoral)).

Examines the scientific and clinical literature relevant to developmental aspects of behavior across the lifespan and normal and pathological behavior in children and adolescents. Issues in developmental psychology and developmental psychopathology and consideration of processes initiated in childhood that manifest as pathology in adulthood are also considered.

PCC1	Christina Danko	Seats (Total: 40)
	Meets February 28, 2022 - May 18, 2022	
	Th 6:00pm - 9:45pm	BPS 1140B
	Must be in Clinical Psychological Science (MPS).	

PSYC629B **Clinical Laboratory; ASSESSMENT PRACTICUM**

Credits: 1-3 Grading Method: Sat-Fail

Provides advanced supervised experience in the delivery and supervision of mental health interventions targeted to individuals. Supervised work with clients is required.

0101	Michael Guilbault	Seats (Total: 10)
	Contact instructor or department for details.	

PSYC629C **Clinical Laboratory**

Credits: 1-3 Grading Method: Sat-Fail

Provides advanced supervised experience in the delivery and supervision of mental health interventions targeted to individuals. Supervised work with clients is required.

0101	Christopher Seitz-Brown	Seats (Total: 10)
	Contact instructor or department for details.	

PSYC629D **Clinical Laboratory; Child & Adolescent Therapy**

Credits: 1-3 Grading Method: Sat-Fail

Provides advanced supervised experience in the delivery and supervision of mental health interventions targeted to individuals. Supervised work with clients is required.

0101	Mary Byrne	Seats (Total: 10)
	Contact instructor or department for details.	

PSYC630 **Behavioral and Cognitive Behavioral Intervention for Adults**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: PSYC680. Restriction: Permission of instructor. Credit only granted for: PSYC630 or PSYC728. Formerly: PSYC728.

Introduces students to the process of therapy with particular focus on behavioral focus on behavioral and cognitive behavioral internentions. Syllabus focuses on theory, research, client diversity, ehtics, and practical aspects of conducting therapy.

Click here for more course information.

PCC1	Andrea Chisolm	Seats (Total: 40)
	Meets February 28, 2022 - May 18, 2022	
	Tu 6:00pm - 9:45pm	BPS 1140B
	Must be in Clinical Psychological Science (MPS).	

PSYC632 **Behavioral and Cognitive Behavioral Intervention for Children and Adolescents**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of instructor; and must be in one of the following programs (Psychology (Master's); Psychology (Doctoral)). Formerly: PSYC789A.

Introduces students to the process of therapy with particular focus on behavioral and cognitive behavioral interventions in children and adolescents. Syllabus focuses on theory, research, client diversity, ethics and practical aspects of conducting therapy.

0101	Andrea Chronis-Tuscano	Seats (Total: 20)
	Tu 10:00am - 12:50pm	BPS 1103

PSYC638 **Externship in Professional Psychology; Externship in Professional Psychology**

Credits: 1-3 Grading Method: Sat-Fail

Approved appointment as an extern in a mental health setting.

For PSYC majors only.

0101	Lea Dougherty	Seats (Total: 25)
	Contact instructor or department for details.	
0201	Jonathan Mohr	Seats (Total: 25)
	Contact instructor or department for details.	

PSYC639 **Internship in Professional Psychology; Internship in Professional Psychology**

Credits: 1 Grading Method: Sat-Fail

This seminar combines involvement with a program approved appointment as an intern in a mental setting with a supervisory review of the training experience.

For PSYC majors only.

0101	Lea Dougherty	Seats (Total: 20)
	Contact instructor or department for details.	

PSYC643 **Ethics and Foundations of Assessment and Clinical Intervention**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of instructor; and must be in one of the following programs (Psychology (Master's); Psychology (Doctoral)). Credit only granted for: PSYC643 or PSYC719. Formerly: PSYC719.

An overview of the ethical and professional issues involved in psychological research, instruction, and practice, with special attention to advocacy and ethical decision making regarding a variety of primary, secondary, and tertiary clinical/community interventions.

0101	Mary Byrne	Seats (Total: 20)
	W 9:00am - 12:00pm	BPS 2114B

PSYC653 **The Business of Evaluation: Research Methods at Work**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: PSYC652. Additional information: Course builds from work completed in PSYC 652. Students are also expected to commit to a two-term long project. Students will work with a non-profit organization or local business to ask and answer a business question for the organization. Students will conclude this project in PSYC 654.

Students will learn about the strengths and weaknesses of commonly employed research methods in business settings, including: longitudinal research, survey and interview (including focus groups) design, and sampling and weighting. Students will design and launch a research study that will answer a pressing business question.

PCI1	Meg O'Neill	Seats (Total: 40)
	Meets February 28, 2022 - May 18, 2022	
	M 5:00pm - 8:00pm	ESJ 2212
	Class time/details on ELMs	ONLINE
	Must be in the Industrial/Organizational Psychology (MPS). All other graduate students must request permission. Contact oes@umd.edu.	

PSYC654 **Advanced Analytical Thinking: Statistical Methods at Work II**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: PSYC652 and PSYC653. Restriction: Must be in the Master of Professional Studies in Industrial/Organizational Psychology Program.

Students will delve deeply into issues of interpreting and questioning analytic results. Students will learn how to creatively present empirical results in ways that grab the attention of, and are clear to, a variety of stakeholders. Students will present group projects in two presentations, one to the rest of the class (technical audience) and one to an expert panel of practitioners. Finally, this course will introduce students conceptually to a number of advanced statistical methods, such as meta-analysis and structural equation modeling.

PCI1	Meg O'Neill	Seats (Total: 35)	
	Meets February 28, 2022 - May 18, 2022		
	M 5:00pm - 8:30pm Class time/details on ELMs	BPS 1140B ONLINE	Discussion
	Must be in the Industrial/Organizational Psychology (MPS). All other graduate students must request permission. Contact oes@umd.edu.		

PSYC660 **Performance Management, Compensation, and Benefits**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in the Master of Professional Studies in Industrial/Organizational Psychology Program.

This course draws together content on organizational behavior, selection, assessment, development, employee relations, and compensation, among other topics. Students in this course will learn about how to align organizational reward systems, including selection, development, performance appraisal, feedback, and compensation systems. This course will pull from current organizational research and theory on issues ranging from work motivation, employee retention, and feedback processes to issues of organizational strategy and culture.

PCI1	David Shar	Seats (Total: 40)	
	Meets February 28, 2022 - May 18, 2022		
	M 5:00pm - 8:30pm Class time/details on ELMs	HJP 2242 ONLINE	Discussion
	Must be in the Industrial/Organizational Psychology (MPS). All other graduate students must request permission. Contact oes@umd.edu.		

PSYC661 **Practicum in IO Psychology**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: PSYC603, PSYC652, PSYC653, and PSYC654. Restriction: Must be in the Master of Professional Studies in Industrial/Organizational Psychology Program.

In this practicum, students will work on IO-related tasks in an organization and will have the opportunity to apply what they have learned in class to real-world problems. Students will write a reflection paper reviewing what skills they have applied - and developed - while completing this practicum.

PCI1	Matthew Montei	Seats (Total: 40)	
	Meets February 28, 2022 - May 18, 2022		
	M 5:00pm - 8:30pm	HJP 2242	
	Class time/details on ELMs	ONLINE	Discussion
	Must be in the Industrial/Organizational Psychology (MPS). All other graduate students must request permission. Contact oes@umd.edu.		

PSYC686 **Didactic Practicum in Career Counseling**

Credits: 3 Grading Method: Sat-Fail

Credit only granted for: PSYC681 or PSYC686. Formerly: PSYC681.

In depth examination of approaches to issues in career interventions; supervised experience in career counseling and assessment.

0101	Beth Sperber Richie	Seats (Total: 20)
	M 12:00pm - 3:00pm	SHM 1106A

PSYC690 **Research in Counseling Psychology I**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: For Counseling Psychology majors only. Cross-listed with: EDCP690. Formerly: EDCP778.

Critical analysis of strategies, methodological, conceptual, and content trends.

0101	Derek Iwamoto	Seats (Total: 10)
	Th 2:45pm - 5:45pm	BPS 1103

PSYC732 **Selection and Classification Issues in Organizations**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: PSYC603; and (PSYC602; or students who have taken courses with comparable content may contact the department). Or permission of instructor.

Consideration of societal, organizational and individual demands for appropriate use of individual differences in (primarily) initial placement of employees. Recruitment, and selection issues, the role of governmental regulations, and the role of individual factors in individual behavior are considered. Extensive coverage given to fundamental psycho-metric problems and the development of individual and organizational criteria of effectiveness.

0101	Paul Hanges Tu 1:00pm - 3:30pm	Seats (Total: 15) HBK 0108	
PCI1	Kenneth Yusko **Meets February 28, 2022 - May 18, 2022** M 5:00pm - 8:30pm Class time/details on ELMs *Must be in the Industrial/Organizational Psychology (MPS). All other graduate students must request permission. Contact oes@umd.edu.*	Seats (Total: 35) BPS 1140B ONLINE	Discussion

PSYC737 Research Methods in Industrial/Organizational Psychology

Credits: 3 Grading Method: Regular, Audit

Prerequisite: PSYC603; or permission of instructor.

Philosophy, theory, and method issues underlying I/O psychology. History and the effectiveness of different methods for answering different questions is explored. Reliability and validity are emphasized.

0101	James Grand Th 2:00pm - 4:30pm	Seats (Total: 20) HBK 0105

PSYC738T Seminar in Industrial/Organizational Psychology; Psychology of Terrorism

Credits: 3 Grading Method: Regular, Audit

An occasional advanced seminar covering specialized topics.

This seminar will cover classic and contemporary approaches to the psychology of terrorism. We will discuss theories of radicalization and deradicalization, as well as empirical data on the motivational, cultural and social aspects of becoming a violent extremist.

0101	A Kruglanski M 1:00pm - 3:30pm	Seats (Total: 20) HBK 1108

PSYC789 Special Research Problems

Credits: 1-4 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

PSYC798D **Graduate Seminar; Secondary Data Analysis for Psychologists**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Large existing survey data are a powerful yet under-utilized resource for scientists interested in studying human behavior. This graduate-level applied statistical methods course will guide students inbreaking down the barriers to engaging in secondary data analyses of large survey data. We will cover topics such as complex survey designs and recruitment approaches, generalizability, statistical power, preregistration, and reproducibility. To accomplish these goals, students will identify one publicly available survey dataset and engage in secondary data analysis of a research question of their choosing.

0101	Arianna Gard	Seats (Total: 15)
	W 4:00pm - 6:30pm	PLS 1146

PSYC798O **Graduate Seminar; Diversity in Organizations**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Focus is placed on issues surrounding diversity and the interactions of stigmatized and non-stigmatized individuals, with an emphasis on the context of work. Issues related to diversity and discrimination at work involve several key players, including the person(s) being stigmatized, the person doing the stigmatizing, the bystander(s) witnessing stigmatization of others, and the organization. Course readings address each of these perspectives, along with an introductory unit that outlines key concepts of diversity.

0101	Jennifer Wessel	Seats (Total: 20)
	Tu 2:00pm - 4:30pm	HBK 1112

PSYC799 **Master's Thesis Research; MASTERS THESIS RSRCH**

Credits: 1-6 Grading Method: Sat-Fail

For PSYC majors only. For all non-psychology graduate students, written permission of the instructor and department is required.

Contact department for information to register for this course.

PSYC888A **Research Methods in Psychology; Developmental Seminar**

Credits: 1-3 Grading Method: Regular, Audit

0101	Tracy Riggins	Seats (Total: 10)
	Contact instructor or department for details.	

PSYC889 **Research Methods in Psychology; Cognitive and Neural Systems Seminar**

Credits: 1-3 Grading Method: Regular, Audit

0101	Anna Li	Seats (Total: 10)
	Tu 2:00pm - 2:50pm	BPS 1234

PSYC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

PSYC899 **Doctoral Dissertation Research; Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

For PSYC majors only. For all non-psychology graduate students, written permission of the instructor and department is required.

Contact department for information to register for this course.

RDEV Real Estate Development Spring 2022

RDEV250 **People, Planet, and Profit: Building Sustainable Places**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Cross-listed with: ARCH271. Credit only granted for: ARCH271 or RDEV250.

An introduction to the four disciplines represented in the School: architecture and urban design, community planning, historic preservation, and real estate development, that work to create a more sustainable environment for the future to create a more sustainable environment for the future using our interpretation of the quadruple bottom line: socio-cultural, economic, environmental, and design sustainability. Students will be provided with an understanding of the fundamental scholarship and processes of each of these disciplines and examine the intersections between them. Additionally, they will learn by applying the approaches of the four disciplines through a series of field studies.

0101	Wayne Curtis	Seats (Total: 85)
	TuTh 11:00am - 12:15pm	JMZ 0220

RDEV350 **Real Estate Development: Introduction to Principles, Process, and Practice**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: RDEV250 or ARCH271. Restriction: Must be enrolled in the RDEV Minor; and permission of ARCH-School of Architecture, Planning, & Preservation. Credit only granted for: RDEV150 or RDEV350. Formerly: RDEV150.

An introduction to the basic principles of real estate development: How real estate and communities get built and how value is created. The emphasis is on entrepreneurship and an experiential learning approach to the entrepreneurial real estate development process, principles, and practice.

0101	Thomas Kaufman Th 7:00pm - 9:40pm	Seats (Total: 16) ARC 1123
0102	Marcus Ervin Th 7:00pm - 9:40pm	Seats (Total: 25) ARC 1103

RDEV450 **Foundations of Real Estate Finance and Investment**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: Must have completed RDEV270 or an approved accounting course with a grade of C- or better; and minimum grade of C- in RDEV350. Restriction: Must be enrolled in RDEV Minor; and permission of ARCH-School of Architecture, Planning, & Preservation.

Real Estate Finance and Investment addresses how real estate value is established, the fundamental foundations of the time value of money, as well as more real estate specific applications of return on investment, net operating income, the components of a real estate sources and uses statement, sources of real estate equity and debt financing, commonly used debt ratios and equity returns in real estate, as well as concepts of sensitivity analysis and exit strategies.

0101	Kathryn Corby Tu 7:00pm - 9:40pm	Seats (Total: 25) ARC 1101
0102	Thomas Dwyer Tu 7:00pm - 9:40pm	Seats (Total: 20) ARC 1105

RDEV600 **Principles and Practice of Real Property Development**

(Perm req)

Credits: 3

Grading Method: Regular

Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV688T or RDEV600. Formerly: RDEV688T.

An introduction to basic principles of real estate development: How real estate and communities get built and how value is created. The emphasis is on entrepreneurship and an experiential learning approach to the entrepreneurial real estate development process, principles, and practice.

0101	Thomas Kaufman	Seats (Total: 15)
	Th 7:00pm - 9:40pm	ARC 1123

RDEV603 **Introduction to Real Property Finance**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Permission of the Department. Credit only granted for: RDEV688Z, RDEV689V, or RDEV603. Formerly: RDEV688Z and RDEV689V.

Introduction to Real Property Finance addresses how real estate value is established, the fundamental foundations of the time value of money, as well as more real estate specific applications of return on investment, net operating income, the components of a real estate sources and uses statement, sources of real estate equity and debt financing, commonly used debt ratios and equity returns in real estate, as well as concepts of sensitivity analysis and exit strategies.

0101	Thomas Dwyer	Seats (Total: 12)
	Tu 7:00pm - 9:40pm	ARC 1105

RDEV610 **Real Property Development Law and Ethics**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV688A or RDEV610. Formerly: RDEV688A.

Presents foundational knowledge about real property, contracts, administrative and constitutional law, and ethical principals and reasoning skills.

0101	David Kalinski	Seats (Total: 30)
	M 7:00pm - 9:40pm	ARC 1103

RDEV615 **Principles, Process and Politics of Planning for Real Property Development**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV688G or RDEV615. Formerly: RDEV688G.

Designed to introduce and familiarize students with planning and zoning and the associated processes and requirements that impact the real property development process and products. It will look at the roles the community and politics play in shaping the built environment and the development process.

0101	Molline Jackson	Seats (Total: 28)
	Th 7:00pm - 9:40pm	ARC 1105

RDEV630 **Real Property Finance and Investment**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV630, RDEV688B, or URSP664. Formerly: RDEV688B.

This course is designed to introduce students who have experience in real estate finance or have taken an introductory course in real estate finance and investment to move to this intermediate course that addresses foundational concepts of commercial real estate finance and the measures used in analyzing and evaluating real estate projects. Quantitative analysis and financial modeling comprise the main focus.

0101	Timur Ryspekov, Roman Rubinchik	Seats (Total: 30)
	Tu 7:00pm - 9:40pm	ARC 1103

RDEV650 **Essentials of Design and Construction Management for Development Professionals**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in Real Estate Development (Master's) program; or permission of ARCH-Real Estate Development. Credit only granted for: RDEV650 or RDEV688C. Formerly: RDEV688C.

Essential terminology, process and substantative knowledge needed by development professionals to effectively move a project through the design and construction process; includes environmental and ethical considerations throughout the process.

0101	Matthew O'Malley	Seats (Total: 28)
	M 7:00pm - 9:40pm	ARC 1101

RDEV689F **Current Topics in Real Estate Development; Advanced Real Estate Development Finance**

Credits: 3 Grading Method: Regular, Audit

Explores a focused aspect in any of the five major phases of real estate development: planning, finance, law, design, construction, or management.

0101	Instructor: TBA Th 7:00pm - 9:40pm	Seats (Total: 15) Location: TBA

RDEV689I **Current Topics in Real Estate Development; Design and Development Competition**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Explores a focused aspect in any of the five major phases of real estate development: planning, finance, law, design, construction, or management.

Prerequisite: Permission of department.

0101	Ronald McDonald M 7:00pm - 9:40pm	Seats (Total: 14) ARC 1127

RDEV689R **Current Topics in Real Estate Development; Retail Real Estate Development and Asset Management**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Explores a focused aspect in any of the five major phases of real estate development: planning, finance, law, design, construction, or management.

Prerequisite: Permission of department.

0101	Nick Egelanian W 7:00pm - 9:40pm	Seats (Total: 15) ARC 1127

RDEV689Y **Current Topics in Real Estate Development; Guided Real Estate Development Project**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Explores a focused aspect in any of the five major phases of real estate development: planning, finance, law, design, construction, or management.

0101	Maria Day-Marshall Contact instructor or department for details.	Seats (Total: 10)

RDEV690 **Capstone Project: Real Property Feasibility Study**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Completion of at least 7 RDEV courses. Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV688I or RDEV690. Formerly: RDEV688I.

The capstone course is designed to provide students with an opportunity to apply acquired classroom knowledge to real world conditions. Each student in the class will work separately to create a development proposal and feasibility study for an assigned property. For students doing a feasibility study of a development the study will address at least market analysis, entitlement process, construction, and financing for the project.

0101	Tanya Bansal Tu 7:00pm - 9:40pm	Seats (Total: 10) ARC 1125
0102	Tanya Bansal Tu 7:00pm - 9:40pm	Seats (Total: 10) ONLINE
0103	Tanya Bansal Tu 7:00pm - 9:40pm	Seats (Total: 10) ONLINE
0104	Tanya Bansal Tu 7:00pm - 9:40pm	Seats (Total: 10) ONLINE
0105	Tanya Bansal Tu 7:00pm - 9:40pm	Seats (Total: 10) ONLINE

RELS Religious Studies Spring 2022

RELS170 **Greek and Roman Mythology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

Cross-listed with: CLAS170. Credit only granted for: CLAS170 or RELS170. Additional information: This course cannot be taken for language credit.

What are myths and why do we tell them? What powers do myths have? We will tackle these questions by looking at the enduring and fascinating myths from ancient Greece and Rome. In addition to studying how they shaped ancient societies, we will also look at their modern influence and reflect upon the power that myths still hold in our contemporary world. Taught in English.

0101	Jorge Bravo MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 21) MMH 1400 HBK 0105	 Discussion

0102	Jorge Bravo MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 21) MMH 1400 HBK 0105	Discussion
0103	Jorge Bravo MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 21) MMH 1400 LEF 1171	Discussion
0104	Jorge Bravo MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 21) MMH 1400 PLS 1158	Discussion
0105	Jorge Bravo MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 21) MMH 1400 PLS 1158	Discussion
0106	Jorge Bravo MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 21) MMH 1400 VMH 1107	Discussion
0107	Jorge Bravo MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 21) MMH 1400 ASY 3217	Discussion
0108	Jorge Bravo MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 21) MMH 1400 ASY 3217	Discussion
0109	Jorge Bravo MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 21) MMH 1400 EDU 2102	Discussion

RELS219K **Reformers, Radicals, and Revolutionaries: The Middle East in the Twentieth Century**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS

Cross-listed with: HIST245. Credit only granted for: RELS219K or HIST245.

The 20th century was a period of dramatic changes in the Middle East. Within the global context of the two World Wars and the Cold War, countries in the region struggled with the effects of colonialism and painful processes of decolonization. The course offers a thematic-comparative approach to issues such as social and political reform, nationalism, the colonial experience, independence struggles, models of governance, political violence, and Islamism. Course lectures and the analysis and discussion of primary sources will lead students to understand that the peoples of the Middle East found answers to the challenges posed by Western dominance based on their specific historical, cultural and socio-economic circumstances.

For Spring 2021; Cross-listed with HIST245. Credit granted for HIST245, ARAB298K, or RELS219K.

0101	Peter Wien	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	KEY 0126

RELS225 **Religions of the Ancient Near East**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Cross-listed with: HIST219I, JWST225. Credit only granted for: JWST225, HIST219I, RELS225, or RELS219A. Formerly: RELS219A.

Introduction to ancient Near Eastern religious systems and mythology, from the third millennium BCE through the fourth century BCE. Particular emphasis on Mesopotamia and ancient Israel.

0101	Matthew Suriano	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	LEF 1220

RELS269B **Special Topics in Study Abroad II; Buddhism and Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS269G **Special Topics in Study Abroad II; From Asoka to Gandhi: Buddhism and Hinduism in Contemporary Society**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS271 **What is Religion?**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	General Education: DSHU, DVCC, SCIS

Credit only granted for: RELS289I or RELS271. Formerly: RELS289I.

Draws upon examples from a wide variety of religious traditions to explore the question of what religion is and how to best understand it. Engagement with diverse approaches to religion including phenomenology and the study of "the sacred"; sociology and the study of religious communities; and questions of religious experience, ritual, and identity formation.

0101	Maxine Grossman TuTh 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 16) LEF 2166 ESJ B0322	Discussion
0102	Maxine Grossman TuTh 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 16) LEF 2166 LEF 1221	Discussion
0103	Maxine Grossman TuTh 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 16) LEF 2166 JMZ 0125	Discussion

RELS289C **Jews, Christians, and Muslims in Medieval Spain: Tolerance, Oppression, and the Problematic Past**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	General Education: DSHS, DVUP, SCIS

Cross-listed with: HIST289A. Credit only granted for: HIST289A or RELS289C.

For 800 years, medieval Spain was home to one of the most religiously diverse societies in European history. Despite frequent hostilities, the interactions of Spanish Jews, Christians, and Muslims produced a flowering of science, theology, and literature in an often remarkably tolerant climate. Students will learn how medieval Spanish people themselves experienced interreligious contact and conflict. They will also discover the modern pressures, prejudices, and ideals that have shaped historians interpretations of medieval Spain.

0101	Janna Bianchini MW 11:00am - 11:50am M 12:00pm - 12:50pm	Seats (Total: 23) ESJ 1202 TLF 2103	Discussion
0102	Janna Bianchini MW 11:00am - 11:50am M 2:00pm - 2:50pm	Seats (Total: 23) ESJ 1202 TLF 2103	Discussion

0103	Janna Bianchini MW 11:00am - 11:50am W 9:00am - 9:50am	Seats (Total: 23) ESJ 1202 KEY 0100	Discussion

RELS369C **Special Topics in Study Abroad III; Between Tolerance and Conflict**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS369L **Special Topics in Study Abroad III; Society and Religion in Latin America**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS369R **Special Topics in Study Abroad III; Christianity and the Roman Empire (100-425CE)**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS369Z **Special Topics in Study Abroad III; All Roads Lead to Rome**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS419C **Advanced Topics in Religious Studies; Constructing the Past in Early Islam**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The contemporary study of religion in which topics may address specific religious traditions, regional or historical developments, or methodological and theoretical issues.

Cross-listed with HIST429M. Credit only granted for HIST429M or RELS419C.

0101	Antoine Borrut W 3:30pm - 6:00pm	Seats (Total: 10) TLF 2108

RELS499 **Independent Study in Religious Studies**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

An advanced independent research project for qualified students, supervised by a faculty member, on a topic not ordinarily covered in available courses.

Contact department for information to register for this course.

RUSS Russian Spring 2022

RUSS102 **Intensive Elementary Russian II**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: RUSS101 or RUSS102; and must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a native/fluent speaker of Russian. Credit only granted for: RUSS102 or (RUSS113 and RUSS114).

A continuation of RUSS101 which will further develop the four skills: reading, writing, listening and speaking with an emphasis on communicative competence.

0101	Inna Hardman MWF 10:00am - 10:50am TuTh 9:30am - 10:45am	Seats (Total: 15) JMZ 1117 JMZ 2120
0201	Inna Hardman MWF 11:00am - 11:50am TuTh 11:00am - 12:15pm	Seats (Total: 15) JMZ 1117 JMZ 1226

RUSS202 **Intermediate Russian II**

Credits: 5 Grading Method: Regular, Pass-Fail, Audit CORE: HO

Prerequisite: RUSS201; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a native/fluent speaker of Russian.

Continued activation and expansion of skills and knowledge acquired in RUSS201 with the goal of communicative competence.

0101	Zhanna Gerus-Vernola	Seats (Total: 15)
	MWF 10:00am - 10:50am	JMZ 1120
	TuTh 10:00am - 10:50am	JMZ 1120

RUSS302 **Advanced Russian II**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: RUSS301.

Advanced training in written Russian communicative structures.

0101	Cynthia Martin	Seats (Total: 15)
	MWF 10:00am - 10:50am	JMZ 3122

RUSS334 **Soviet Film: Propaganda, Myth, Modernism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: CINE334. Credit only granted for: RUSS334, CINE334, or FILM334. Formerly: FILM334.

A Survey of Soviet film from the 1920s to 1991, focusing on important directors, genres, themes, and styles. Taught in English.

0101	Elizabeth Papazian	Seats (Total: 30)
	Tu 2:00pm - 3:15pm	ESJ B0322
	Th 2:00pm - 4:30pm	ESJ B0322

RUSS386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Restriction: Junior standing or higher; and permission of ARHU-School of Languages, Literatures, and Cultures department.

Contact the department to obtain section numbers.

Contact department for information to register for this course.

RUSS398C **Selected Topics in Russian Language and Literature; Russian Practicum in Conversation with a Focus on Phonetics and Intonation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: RUSS102 or equivalent.

0101	Inna Hardman	Seats (Total: 15)
	MWF 1:00pm - 1:50pm	JMZ 2117

RUSS402 **Practicum in Written Russian**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: RUSS401; or students who have taken courses with comparable content may contact the department.

Designed to improve comprehension of functional varieties of written Russian and develop ability to present in written form concise syntheses of source texts.

0101	Cynthia Martin	Seats (Total: 15)
	MWF 11:00am - 11:50am	JMZ 3203

RUSS439D **Selected Topics in Russian Literature; Dostoevsky's Crime and Punishment: Modernity and the City**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Presentation of a topic in Russian literature.

Prerequisite: RUSS301 or equivalent. Reading and analysis of Dostoevsky s 1866 novel. Taught in Russian.

0101	Elizabeth Papazian	Seats (Total: 15)
	TuTh 12:30pm - 1:45pm	JMZ 2125

RUSS499 **Independent Study in Russian**

(Perm req)

Credits: 1-3 Grading Method: Regular

Independent study under faculty supervision.

Contact department for information to register for this course.

RUSS798 **Independent Study**

Credits: 1-3 Grading Method: Regular, Audit

Contact department for information to register for this course.

RUSS799 **Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

SLAA Second Language Acquisition and Application Spring 2022

SLAA498 **Second Language Research and Practicum**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Individualized research and practicum for undergraduate students to work as Undergraduate Research Assistants (UGRA) on existing projects under the supervision of a PhD Graduate Supervisor (GS) in the area of second language acquisition to learn/experience how second language as well as psycholinguistic research is conducted.

Contact department for information to register for this course.

SLAA611 **Fundamentals of Foreign Language Acquisition and Instruction**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Introduction to theoretical and practical issues relevant to foreign language learning, language acquisition, and curriculum construction.

0101	Kira Gor	Seats (Total: 15)
	W 5:00pm - 7:30pm	JMZ 1117

SLAA620 **Second Language Research Methodologies**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: SLAA610; and must have completed or be concurrently enrolled in SLAA611.

An exploration of research methodology in second language acquisition (SLA), with a focus on developing practical skills in data analysis and interpretation. Preparation in both critical evaluation of existing research and design of new research models.

0101	Martyn Clark	Seats (Total: 10)
	M 5:00pm - 7:30pm	JMZ 1117

SLAA649R **Special Topics in Second Language Acquisition; Research Critique**

Credits: 3

Grading Method: Regular, Audit

Current topics in research in second language acquisition.

0101	Kira Gor	Seats (Total: 10)
	Th 5:00pm - 7:30pm	JMZ 1117

SLAA650 **Second Language Analysis**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: SLAA610; or permission of ARHU-School of Languages, Literatures, and Cultures department.

An overview of the field of linguistics with a particular attention to its application in SLA studies, introduces students to the basic concepts and skills related to the scientific study of language, and provides them with opportunities to apply these concepts and skills in the analysis of language. It covers topics such as phonetics, phonology, morphology, syntax, semantics, language acquisition, and language use.

0101	Nan Jiang	Seats (Total: 10)
	Th 2:00pm - 4:30pm	JMZ 1117

SLAA719 **Second Language Acquisition and Application Internship**

Credits: 3

Grading Method: Regular, Audit

Internship at a site to be determined. Topics may include heritage language learning, immersion education, testing and assessment, translation and interpretation, and national language planning and policy.

Contact department for information to register for this course.

SLAA742 **Second Language Processing**

Credits: 3

Grading Method: Regular, Audit

Restriction: Permission of instructor required for MA students.

Covers leading theoretical approaches and experimental methods in second language processing. Draws on research and theories in Second Language Acquisition (SLA), formal linguistics, cognitive grammar, psycholinguistics, and neurolinguistics.

0101	Nan Jiang	Seats (Total: 10)
	Tu 5:00pm - 7:30pm	JMZ 1117

SLAA760 **Fundamentals of Second Language Assessment**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: SLAA610.

An overview of current assessment models in foreign and second language learning.

0101	Megan Masters	Seats (Total: 10)
	W 2:00pm - 4:30pm	JMZ 1117

SLAA779 **Directed Research in Second Language Acquisition and Application**

Credits: 1-3 Grading Method: Regular, Audit

Directed independent research in Second Language Acquisition or Application. In this capstone project, students engage in independent research under faculty direction.

Contact department for information to register for this course.

SLAA798 **Master's Independent Study**

Credits: 1-3 Grading Method: Regular, Audit

Contact department for information to register for this course.

SLAA799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

SLAA888 **Doctoral Independent Study**

Credits: 1-3 Grading Method: Regular, Audit

Individual instruction course.

Contact department for information to register for this course.

SLAA898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

SLAA899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

SLLC School of Languages, Literatures and Cultures Spring 2022

SLLC109N **Beg Less Commonly Taught Language II; Elementary Norwegian II**

Credits: 4 Grading Method: Regular, Pass-Fail

Study of any of the less commonly taught languages at the elementary level, as a continuation of SLLC108 (in the same language). Speaking, listening, reading, and writing a less commonly taught language. Development of an emphasis on oral proficiency skills.

This is a Big Ten Academic Alliance CourseShare course. The instructor is at the University of Minnesota, but you enroll and receive credit for it at Maryland.

0101	Instructor: TBA	Seats (Total: 5)
	Meets January 18, 2022 - May 2, 2022	
	MWTh 5:40pm - 7:05pm	ONLINE

SLLC109R **Beg Less Commonly Taught Language II; Elementary Urdu II**

Credits: 4 Grading Method: Regular, Pass-Fail

Study of any of the less commonly taught languages at the elementary level, as a continuation of SLLC108 (in the same language). Speaking, listening, reading, and writing a less commonly taught language. Development of an emphasis on oral proficiency skills.

This is a Big Ten Academic Alliance CourseShare course. The instructor is at the University of Minnesota, but you enroll and receive credit for it at Maryland.

0101	Instructor: TBA	Seats (Total: 5)
	Meets January 18, 2022 - May 2, 2022	
	MTuWThF 10:05am - 11:10am	ONLINE

SLLC169L **Special Topics in Study Abroad I; Basque Language and Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC209D **Intermediate Less Commonly Taught Language II; Intermediate Danish II**

Credits: 4

Grading Method: Regular, Pass-Fail

Second semester Intermediate-level work on speaking, reading, and writing a less commonly taught language. Continued development of oral proficiency skills.

This is a Big Ten Academic Alliance CourseShare course. The instructor is at the University of Wisconsin, but you enroll and receive credit for it at Maryland.

0101	Instructor: TBA	Seats (Total: 5)
	Meets January 25, 2022 - May 6, 2022	
	MTuWTh 10:55am - 11:45am	ONLINE
	Class time/details on ELMs	ONLINE

SLLC209R **Intermediate Less Commonly Taught Language II; Intermediate Urdu II**

Credits: 4

Grading Method: Regular, Pass-Fail

Second semester Intermediate-level work on speaking, reading, and writing a less commonly taught language. Continued development of oral proficiency skills.

This is a Big Ten Academic Alliance CourseShare course. The instructor is at the University of Minnesota, but you enroll and receive credit for it at Maryland.

0101	Instructor: TBA	Seats (Total: 5)
	Meets January 18, 2022 - May 3, 2022	
	MTuWThF 11:10am - 12:00pm	ONLINE

SLLC269D **Special Topics in Study Abroad II; Catalan Language and Culture**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC286 **Living the Good Life: Chinese Philosophy in the Modern World**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DSHU, SCIS

Additional information: Taught in English.

Confucius, Mencius, Zhuangzi and other Chinese thinkers who lived more than 2,000 years ago would argue that the contemporary Western emphasis on self-discovery (Find yourself) and self-acceptance has led you astray. See what they have to say and discuss what relevance it has for the modern world as we study how early Chinese thinkers wrestled with questions of existence, morality, and governance. No previous knowledge of Chinese philosophy and history will be assumed and no prerequisites are required. We will discuss ideas that are both historical and relevant to students' lives. What is "the Way"? How do we cultivate spontaneity? Is there a stable self? How can we be more alive? These are questions important for ancient kings but also for UMD students choosing a major, or wondering how ARHU can benefit them.

0101	Andrew Schonebaum	Seats (Total: 60)
	TuTh 12:30pm - 1:45pm	JMZ 0220

SLLC299R **Special Topics in World Cultures; Elementary Italian I**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Topic to be announced when course is offered.

Contact department for information to register for this course.

SLLC299Z **Special Topics in World Cultures; Spanish Civilization and Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topic to be announced when course is offered.

Contact department for information to register for this course.

SLLC305 **Language, Identity and Diversity in the U.S.**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DSSP, DVUP

Introduces issues of linguistic diversity in the framework of the U.S. as a multilingual society. Special emphasis is placed on attitudes toward language diversity, specifically, how regional, social, generational, ethnic, racial and gender differences in language use contribute to notions of identity.

0101	Ali Abasi	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	JMZ 2120

SLLC309 **Language Partner Program**

(Perm req) Credits: 1 Grading Method: Regular, Pass-Fail

For intermediate- to advanced-level language study. Conversations entirely in target language with native speaker.

Students interested in enrolling must first apply and be accepted to the Language Partner Program. Decisions on admission are typically made after the registration period begins, so please keep this in mind when planning your schedule, and be sure to keep the course dates/times open. Students must be able to meet on Monday, February 7, 2022 and Monday, May 2, 2022.

0101	Lindsay Yotsukura **Meets February 7, 2022 - May 9, 2022** M 4:00pm - 5:50pm Contact instructor or department for details. *Arabic*	Seats (Total: 10) Location: TBA
0102	Lindsay Yotsukura **Meets February 7, 2022 - May 9, 2022** M 4:00pm - 5:50pm Contact instructor or department for details. *Chinese*	Seats (Total: 10) Location: TBA
0103	Lindsay Yotsukura **Meets February 7, 2022 - May 9, 2022** M 4:00pm - 5:50pm Contact instructor or department for details. *French*	Seats (Total: 10) Location: TBA
0104	Lindsay Yotsukura **Meets February 7, 2022 - May 9, 2022** M 4:00pm - 5:50pm Contact instructor or department for details. *German*	Seats (Total: 10) Location: TBA
0105	Lindsay Yotsukura **Meets February 7, 2022 - May 9, 2022** M 4:00pm - 5:50pm Contact instructor or department for details. *Italian*	Seats (Total: 10) Location: TBA

0106	Lindsay Yotsukura **Meets February 7, 2022 - May 9, 2022** M 4:00pm - 5:50pm Contact instructor or department for details. *Japanese*	Seats (Total: 10) Location: TBA
0107	Lindsay Yotsukura **Meets February 7, 2022 - May 9, 2022** M 4:00pm - 5:50pm Contact instructor or department for details. *Korean*	Seats (Total: 10) Location: TBA
0108	Lindsay Yotsukura **Meets February 7, 2022 - May 9, 2022** M 4:00pm - 5:50pm Contact instructor or department for details. *Portuguese*	Seats (Total: 10) Location: TBA
0109	Lindsay Yotsukura **Meets February 7, 2022 - May 9, 2022** M 4:00pm - 5:50pm Contact instructor or department for details. *Russian*	Seats (Total: 10) Location: TBA
0110	Lindsay Yotsukura **Meets February 7, 2022 - May 9, 2022** M 4:00pm - 5:50pm Contact instructor or department for details. *Spanish*	Seats (Total: 15) Location: TBA

SLLC319Q **Advanced Less Commonly Taught Language II; Advance Quechua II**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Advanced-level work on speaking, reading, and writing a less commonly taught language.

This is a Big Ten Academic Alliance CourseShare course. The instructor is at the University of Michigan, but you enroll and receive credit for it at Maryland.

0101	Instructor: TBA	Seats (Total: 5)
	Meets January 5, 2022 - April 19, 2022	
	MW 3:00pm - 5:00pm	ONLINE

SLLC319R **Advanced Less Commonly Taught Language II; Advanced Urdu II**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Advanced-level work on speaking, reading, and writing a less commonly taught language.

This is a Big Ten Academic Alliance CourseShare course. The instructor is at the University of Minnesota, but you enroll and receive credit for it at Maryland.

0101	Instructor: TBA	Seats (Total: 5)
	Meets January 18, 2022 - May 2, 2022	
	MW 3:30pm - 5:25pm	ONLINE

SLLC369A **Special Topics in Study Abroad III**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC369D **Special Topics in Study Abroad III; Art and Dictatorship**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC369E **Special Topics in Study Abroad III; Experiments in Czech Film**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC386 **Experiential Learning**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor and the student's internship sponsor. Restriction: Junior standing or higher.

Contact department for information to register for this course.

SLLC499I **Special Topics in World Cultures; The Islamicate World 2.0: Studying Islamic Cultures through Computational Textual Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Interdisciplinary, transnational or cross-language course; specific topic to be announced.

Cross-listed with PERS498W and HIST429G. Credit granted for PERS498W, HIST429G, or SLLC499I. An introduction to the use of computational methods for the study of Islamic cultures and societies.

0101	Jonathan Allen	Seats (Total: 15)
	Th 12:30pm - 3:00pm	JMZ 1103

SLLC789 **Master's Independent Study**

Credits: 1-3 Grading Method: Regular

Contact department for information to register for this course.

SMLP Southern Management Leadership Program Spring 2022

SMLP471 **Entrepreneurial Finance**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Restricted to students in the Southern Management Leadership Program. Credit only granted for: HLMN471, SMLP471, ENES466 or BMGT365. Formerly: HLMN471. Additional information: SMLP471 may not count toward any BMGT major or minor degree.

Examine the elements of entrepreneurial finance, develop and analyze financial statements, focusing on technology-based startup ventures and the early stages of company development. Address key questions that challenge all entrepreneurs: how much money can and should be raised; when it should be raised and from whom; how to define a reasonable valuation of a company; and how to structure funding, develop employment contracts, and make exit decisions. Analyze the variety of financing models across a venture's life cycle, with an aim to understanding the incentives of each type of investor and the relative costs and benefits of each source of funding.

0101	Brian Baick	Seats (Total: 60)
	F 1:00pm - 3:30pm	ESJ 2212

SMLP473 **Consulting in Tech Entrepreneurship**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Restricted to students in the Southern Management Leadership Program. Credit only granted for: HLMN473 or SMLP473. Formerly: HLMN473. Additional information: HLMN473 may not count toward any BMGT major or minor degree.

Apply the entrepreneurship/business principles learned in the classroom to real-world consulting projects. Gain practical experience by solving actual business situations and by dealing with ambiguity and uncertainty inherent in fast-moving technical organizations. Develop key skills in negotiation, group dynamics, organization, and planning.

0101	Gul Branco F 1:00pm - 3:30pm	Seats (Total: 60) TWS 1310

SOCY Sociology Spring 2022

SOCY100 **Introduction to Sociology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB General Education: DSHS

The fundamental concepts and principles of sociology. Includes consideration of culture, patterns of social interaction, norms, values, social institutions, stratification, and social change.

0101	Fariha Khalid TuTh 9:30am - 10:45am	Seats (Total: 90) ONLINE
0201	Saswathi Natta Tu 3:30pm - 4:45pm Th 3:30pm - 4:45pm	Seats (Total: 90) JMZ 0220 ONLINE
0301	Mansoor Moaddel TuTh 2:00pm - 3:15pm	Seats (Total: 90) ASY 1213
0401	Julia Chuang MW 3:00pm - 4:15pm	Seats (Total: 120) ASY 2203
0501	Asiah Gayfield MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 100) ASY 2203 ONLINE

SOCY105 **Introduction to Contemporary Social Problems**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

An examination of contemporary social problems through sociological perspectives; ways in which social problems are part of the organization of society; a detailed study of selected social problems including social conflict and social inequality.

0101	Brian Connor MWF 11:00am - 11:50am	Seats (Total: 70) ASY 1213	
0201	Brian Connor MWF 10:00am - 10:50am	Seats (Total: 70) ASY 2309	

SOCY200 Human Societies

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS, SCIS

A comparative, historical, interdisciplinary study of human socieities that focuses on the main components of human societies, how they are organized, how they change, and how they come to shape our collective social existence.

0101	Nicole De Loatch TuTh 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 20) ASY 2203 ONLINE	Discussion
0102	Nicole De Loatch TuTh 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 20) ASY 2203 ONLINE	Discussion
0103	Nicole De Loatch TuTh 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 20) ASY 2203 ONLINE	Discussion
0104	Nicole De Loatch TuTh 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 20) ASY 2203 ONLINE	Discussion

SOCY201 Introductory Statistics for Sociology

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSAR

Prerequisite: SOCY100; and (MATH107 or MATH111). Restriction: Must not have completed STAT400, BMGT231, or ENEE324. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201.

Elementary descriptive and inferential statistics. Construction and percentaging of bivariate contingency tables; frequency distributions and graphic presentations; measures of central tendency and dispersion; parametric and nonparametric measures of association and correlation; regression; probability; hypothesis testing; the normal, binomial and chi-square distributions; point and interval estimates.

0101	Alan Neustadtl TuTh 11:00am - 12:15pm W 10:00am - 11:50am	Seats (Total: 25) ASY 2309 ONLINE	 Lab
0102	Alan Neustadtl TuTh 11:00am - 12:15pm W 12:00pm - 1:50pm	Seats (Total: 25) ASY 2309 ONLINE	 Lab

SOCY202 **Introduction to Research Methods in Sociology**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

The underlying logic, major strategies, specific techniques and skills of sociological research. Research design, measurement, data collection, sampling, field research experiments, surveys, index and scale construction, data analysis, interpretation and report writing.

0101	Wayne Santoro TuTh 12:30pm - 1:45pm F 10:00am - 11:50am	Seats (Total: 40) ASY 2309 EDU 1121	 Lab
0102	Wayne Santoro TuTh 12:30pm - 1:45pm F 12:00pm - 1:50pm	Seats (Total: 40) ASY 2309 EDU 1121	 Lab

SOCY203 **Sociological Theory**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SOCY100.

Development of the science of sociology; historical backgrounds; recent theories of society. Required of all sociology majors.

Required for all SOCY majors.

0101	Meyer Kestnbaum	Seats (Total: 50)
	TuTh 2:00pm - 3:15pm	HJP 2242

SOCY215 **Introduction to Environmental Sociology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: SOCY215 or SOCY415.

This course is an introduction to the sociology of the environment, more commonly known as environmental sociology. The course is divided into two sections. The first will provide a broad initial overview of the field, presenting some of the major theoretical themes. The second will examine some key current themes in environmental sociology using the case of climate change. The coursework and the readings are intended to be helpful to two main groups of students: (1) those in the Sociology department who are interested in looking at the society/environment relationship and would like exposure to the literature; and (2) those in other departments who have an interest in the social side of environmental issues.

0101	Dana Fisher	Seats (Total: 35)
	TuTh 12:30pm - 1:45pm	TWS 1107

SOCY224 **Why are We Still Talking About Race?**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSHS, SCIS

Exploration of the major debates and assumptions that construct individual perceptions of what race is and how race matters. Sociological and sub-cultural theories will give students a historical and present day frame with which to view race and ethnic relations in the twenty-first century.

0101	Kris Marsh	Seats (Total: 120)
	TuTh 9:30am - 10:45am	ASY 2203

SOCY227 **Introduction to the Study of Deviance**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB General Education: DSHS

Credit only granted for: SOCY227 or SOCY327. Formerly: SOCY327.

An introduction to the sociological study of deviant behavior, covering such topics as mental illness, sexual deviance, and the use of drugs.

0201	Rodrigo Dominguez-Martinez TuTh 3:30pm - 4:45pm	Seats (Total: 90) SQH 1120

SOCY230 **Sociological Social Psychology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS

Theoretical perspectives and their applications. Socialization through the life course, the self-concept, attitudes, emotion, attribution, interpersonal relations, group processes, deviance, and social change.

0101	Long Doan TuTh 11:00am - 12:15pm	Seats (Total: 180) MMH 1400

SOCY241 **Inequality in American Society**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB, D

Credit only granted for: SOCY241 or SOCY441.

The dynamics of inequality: its social production, politics, future, and ideological bases. Utopian communities, efforts to eliminate inequality.

Credit granted for SOCY241 or SOCY441.

0101	Collin Mueller MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 80) ASY 2309 ONLINE	 Discussion

SOCY242 **Sociology of Homelessness**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Examines the causes of and solutions for homelessness in society. How social scientists analyze social issues using ethnographic observation, surveys, official statistics, and other research methods. Discusses how policies have responded to the problem of homelessness, and how to evaluate their effectiveness.

0101	Reeve Vanneman TuTh 11:00am - 12:15pm	Seats (Total: 80) ASY 1213

SOCY258L **Special Topics in Study Abroad II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program

Contact department for information to register for this course.

SOCY298C **Selected Topics in Sociology; Sociological Perspectives on Healthcare Policy**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Special topics in Sociology.

Student Facilitator: Jennifer Mondle. A sociological exploration of current healthcare policies in relation to trends in health, illness and disease. This course will focus more broadly on the U.S. healthcare system, and students will explore contemporary trends in the sociodemographic determinants of health, with a particular focus on socioeconomic status, race/ethnicity and gender. Other discussion topics include approaching disparities in the prevalence of maternal mortality, HIV/AIDS, diabetes, and other conditions. We will discuss alternative policies to improve healthcare accessibility for vulnerable groups, with the social determinants of health in mind. This is an ideal course for those interested in a career in healthcare, policy advocacy, and/or law, but open to anyone with interest.

0101	Joan Kahn	Seats (Total: 30)
	M 10:00am - 10:50am	KEY 1117

SOCY325 **The Sociology of Gender**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D

Prerequisite: 3 credits in SOCY courses. Cross-listed with: WGSS325. Credit only granted for: SOCY325, WMST325 or WGSS325. Formerly: WMST325.

Institutional bases of gender roles and gender inequality, cultural perspectives on gender, gender socialization, feminism, and gender-role change. Emphasis on contemporary American society.

Contact department for information to register for this course.

SOCY335 **Sociology of Health and Illness**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

An exploration of the social model to studying health and illness: how meanings and experiences of health and illness are socially produced. How experiences are shaped by the interaction of external social environments (culture, community) and the internal environment (human body), and by socio-demographic variables (race, class, gender, etc.). Disparities in health and healthcare delivery, medicalization of society, determinants of health, social construction of illness, and the social organization of health care.

0101	Joey Brown	Seats (Total: 80)
	TuTh 11:00am - 12:15pm	SQH 1120

SOCY358M **Special Topics in Study Abroad III; Muslims in the West**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SOCY370 **Transition from Undergrad to Professional**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Sociology major.

Prepares Sociology majors to make the transition from undergraduate to entering graduate school and/or the professional work world. Topics include career options in Sociology, skills for conducting a job search, resume writing and interview preparation, and the graduate application process.

Restricted to Sociology Majors.

0101	Amy McLaughlin	Seats (Total: 20)
	MW 1:00pm - 1:50pm	ASY 1101

SOCY380 **Honors Independent Reading in Sociology**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of BSOS-Sociology department.

This course permits sociology honor students to undertake a program or reading on a particular problem in sociology or a subfield therein. The reading will be done under the supervision of a member of the sociology faculty. Required of sociology honor students.

0101	Nicole De Loatch	Seats (Total: 5)
	Class time/details on ELMs	ONLINE

SOCY381 **Honors Independent Research in Sociology**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SOCY380.

This course permits sociology students to define a particular problem in sociology or a subfield therein and to develop a research plan for use as a thesis topic. The work will be done under the supervision of a member of the sociology faculty.

Contact department for information to register for this course.

SOCY383 **Honors Thesis Research**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SOCY381.

Student research under the direction of a member of the sociology faculty, culminating in the presentation and defense of a thesis reporting the research.

Contact department for information to register for this course.

SOCY386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Restriction: Permission of BSOS-Sociology department; and junior standing or higher.

To register, students must have departmental permission form signed by instructor and by Coordinator of Sociology Undergraduate Program.

Contact department for information to register for this course.

SOCY399 **Independent Study in Sociology**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Integrated reading or research under the direction and supervision of a faculty member. A maximum of 6 credits may be earned by a student for the same field experience in SOCY386 and SOCY399 combined.

No more than 6 hours of 399 is allowed for credit.

Contact department for information to register for this course.

SOCY399G **Independent Study in Sociology; Social Policy, Social Exclusion**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Integrated reading or research under the direction and supervision of a faculty member. A maximum of 6 credits may be earned by a student for the same field experience in SOCY386 and SOCY399 combined.

Contact department for information to register for this course.

SOCY410 **Social Demography**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 6 credits in SOCY courses; or permission of BSOS-Sociology department.

Types of demographic analysis; demographic data; population characteristics; migration; mortality; fertility; population theories; world population growth; population policy.

0101	Feinian Chen	Seats (Total: 29)
	MW 2:00pm - 3:15pm	ASY 3203

SOCY412 **Family Demography**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SOCY201 and SOCY202; or permission of the Sociology department.

Family and population dynamics. Fertility issues, such as teenage pregnancy, the timing of parenthood, and family size, as they relate to family behavior, such as marital patterns, child care use, and work and the family. Policy issues that relate to demographic changes in the family.

0101	Michael Rendall	Seats (Total: 20)
	TuTh 9:30am - 10:45am	LEF 0227

SOCY413 **Sociology of Aging**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SOCY201 and SOCY202; or permission of the Sociology department.

The aging of the population is one of the major demographic changes affecting social institutions during the next century. Research demography, sociology, economics, epidemiology, psychology and public health are integrated to develop a broader understanding of the causes and consequences of population aging. A central focus is the diversity of experiences by age, gender, socioeconomic status and health.

0101	Joan Kahn Th 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 29) ASY 3203 ONLINE

SOCY424 **Sociology of Race Relations**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 6 credits in SOCY courses; or permission of UGST-Undergraduate Studies. Cross-listed with: AAST424. Credit only granted for: AAST424 or SOCY424.

Analysis of race-related issues, with a primary focus on American society. The historical emergence, development, and institutionalization of racism; the impact of racism on its victims; and racially based conflict.

Contact department for information to register for this course.

SOCY428 **Research in Inequality**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This is the special topics research course for Stratification and Inequality.

This is a research course on content analysis of American culture. We investigate and try to quantify changes in American culture that might help us understand changes in different types of inequality. Our use of content analyses will look for patterns in several cultural sources (e.g., books, newspapers, films, other?) that might show evidence of cultural changes relevant to inequality. The exercises, readings, and short papers are all designed to involve students in ongoing research questions that remain unresolved.

0101	Reeve Vanneman TuTh 5:00pm - 6:15pm	Seats (Total: 29) ASY 3211

SOCY432 **Social Movements**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 6 credits in SOCY courses; or permission of BSOS-Sociology department.

Movements that seek change in the social and political structure of society. Origins, tactics, organization, recruitment, and success. Case studies come from such movements as labor, civil rights, student, feminist, environmental, neighborhood, and gay rights.

0101	Wayne Santoro	Seats (Total: 29)
	TuTh 8:00am - 9:15am	ASY 3203

SOCY458Z **Special Topics in Study Abroad IV**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SOCY467 **Sociology of Education**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 6 credits in SOCY courses; or permission of BSOS-Sociology department.

Sociological analysis of educational institutions and their relation to society: goals and functions, the mechanisms of social control, and the impacts of stratification and social change. Study of the school as a formal organization, and the roles and subcultures of teachers and students.

Contact department for information to register for this course.

SOCY470 **Sex, Family Planning, and Inequality**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 6 credits in SOCY courses; or permission of Sociology Department.

Analysis of patterns in sexual activity, contraceptive use, and unintended pregnancy, and how they reinforce or alleviate socioeconomic, gender, and racial inequalities. Emphasis on the role of healthcare providers and contraceptive access, attitudes about motherhood and contraception, policy interventions, and institutional designs. Social and economic consequences of increasing women's ability to control their fertility.

0101	Monica Caudillo	Seats (Total: 29)
	TuTh 9:30am - 10:45am	ASY 3203

SOCY491 **Experimental Research Design**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SOCY201, SOCY202 and SOCY490; or permission of BSOS-Sociology department. Additional information: This is the second course in the experimental research practicum 2-course sequence.

Students will finalize the design of their studies from the fall semester and carry out the research in this course. Introduces students to analyzing experimental data and presenting results from these data. Students will continue to get hands-on research experience running experimental studies in the group processes lab and working with the professor and graduate students in the department to further develop their projects.

0101	Long Doan	Seats (Total: 29)
	TuTh 2:00pm - 3:15pm	ASY 1101

SOCY498 **Selected Topics in Sociology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

Contact department for information to register for this course.

SOCY498C **Selected Topics in Sociology; Sociology of Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

This course analyzes the relationship between society and culture. How do social forces affect cultural objects and products? How do values and meanings shape individual behavior? How can culture be both a source of domination and resistance? These and other topics will be analyzed to show the role of culture in our lives.

0101	Brian Connor	Seats (Total: 29)
	MWF 2:00pm - 2:50pm	ASY 3207

SOCY498K **Selected Topics in Sociology; Youth, Resistance, and Social Control**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

Contact department for information to register for this course.

SOCY498L **Selected Topics in Sociology; Global Social Policy**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

Contact department for information to register for this course.

SOCY498P **Selected Topics in Sociology; Sociology of Cities**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

Contact department for information to register for this course.

SOCY498U **Selected Topics in Sociology; Sociology of Arts**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

Contact department for information to register for this course.

SOCY498W **Selected Topics in Sociology; Sociology of Emotions**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

Emotions are often thought of as purely subjective experiences. How much more personal than one get than their emotions and feelings? In addition to their physiological and psychological aspects, however, emotions have a social side that often go unnoticed. This course will introduce you to the social aspects of emotions. In doing so, we will cover wide-ranging topics including the social causes of emotions, social norms about emotions, disparities in emotional experiences, and the ways in which emotions can maintain and reshape society.

0101	Long Doan	Seats (Total: 29)
	TuTh 9:30am - 10:45am	ASY 3207

SOCY498Y **Selected Topics in Sociology; Explaining Social Change: Fact and Fiction in Understanding Why Our World Looks the Way it Does**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

This course examines social change from the perspective of comparative and historical sociology, highlighting rich and telling ways of getting at the questions where are we now? and how have we arrived here? Students will wrestle with causal inference in notable works of historical comparative research, and consider on what basis the analyst is able to make more or less persuasive causal claims about patterns of change. The course will focus on the power of case-based scholarship to illuminate and explain, examining strategies of causal inference as well as the kinds of evidence marshaled by scholars to substantiate their claims according to each of these strategies.

0101	Meyer Kestnbaum	Seats (Total: 29)
	TuTh 11:00am - 12:15pm	ASY 1101

SOCY498Z **Selected Topics in Sociology; Pratical Sociology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

Contact department for information to register for this course.

SOCY611 **Introduction to Demographic Methods**

Credits: 3 Grading Method: Regular, Audit

Survey of standard demographic methods for the description and analysis of population size, structure and composition, including techniques for the analysis of fertility, mortality and migration.

0101	Joan Kahn	Seats (Total: 20)
	M 1:00pm - 3:30pm	ASY 2115

SOCY641 **Leadership in Diverse Organizations**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in one of the following programs: Criminology and Criminal Justice (Master's); Criminology and Criminal Justice (Doctoral); Sociology (Master's); Sociology (Doctoral); or permission from either the Sociology Department or Criminology & Criminal Justice Department.

Provides students with a practical understanding of leadership and a framework for understanding three key conditions from which effective leadership emerges: timing, organizational characteristics, and individual characteristics. We will consider different dimensions and/or styles of leadership, as well as the methods effective leaders use to build solidarity within groups and organizations.

PLL1	Lester Andrist	Seats (Total: 20)
	Class time/details on ELMs	ONLINE
	Must be in Graduate Programs in Public Safety Leadership and Administration or a graduate student in a Semester Academic Calendar program.	

SOCY643 **Power and Status in Organizations**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in one of the following programs: Criminology and Criminal Justice (Master's); Criminology and Criminal Justice (Doctoral); Sociology (Master's); Sociology (Doctoral); or permission from BSOS-Sociology department.

Organizations affect virtually every aspect of modern social life. The impact and reach of public safety organizations--those special entities purportedly designed to maintain order and safety--are particularly influential. Although sociologists, psychologists, economists, and management scholars all examine the workings of status and power within organizations, our perspective will be primarily sociological as we explore how power and status operate within the context of organizations.

PLL1	Lester Andrist	Seats (Total: 20)
	Class time/details on ELMs	ONLINE
	Must be in Graduate Programs in Public Safety Leadership and Administration or a graduate student in a Semester Academic Calendar program.	

SOCY672 **Introduction to Statistical Programming Using Stata**

Credits: 3 Grading Method: Regular, Audit

This course provides an overview of the data management skills needed for reproducible research and open science using the statistical application Stata. Students will learn about, data tidying and wrangling, archiving, iteration and functions, and reproducible workflows. The course has the general objective of teaching the basics of data management and statistical programming. This includes preparing data for analysis and conducting the kinds of analyses covered in typical statistics courses. Both the structure and the philosophy of programming generally and the specifics of Stata are covered using real data to illustrate different programming techniques and strategies. The course is suitable for students new to the subject, as well as for those looking to refresh their skills.

0101	Alan Neustadtl	Seats (Total: 20)
	Tu 3:30pm - 6:00pm	ASY 1101

SOCY676 **Intersectionality**

Credits: 3 Grading Method: Regular, Audit

This course is a primer for graduate students interested in pursuing comprehensive exams focusing centrally on intersectionality or where issues related to race, gender, and class are a significant component. We will explore how scholars use intersectionality as a theory, analytical/conceptual framework, and methodological approach. We will also examine how intersectionality enhances and is deployed in empirical research examining inequality at the individual, institutional, and state levels.

0101	Kris Marsh	Seats (Total: 20)
	Th 3:30pm - 6:00pm	ASY 2115

SOCY677 **Qualitative Data Analysis Practicum: Applied Team-Based Approaches for Secondary Interview Data**

Credits: 3 Grading Method: Regular, Audit

Restriction: SOCY graduate students or permission of department.

Focuses on approaches for handling, analyzing, and reporting on large-scale qualitative interview datasets. Students will learn how to navigate major substantive concerns and practical challenges around secondary qualitative data as they collaboratively analyze a novel interview dataset in a team-based approach.

0101	Collin Mueller	Seats (Total: 10)
	M 3:30pm - 6:00pm	ASY 1101

SOCY699 **Special Social Problems**

Credits: 1-16 Grading Method: Regular

Contact department for information to register for this course.

SOCY699F **Special Social Problems; Families and Modern Social Theory**

Credits: 3 Grading Method: Regular, Audit

0101	Philip Cohen	Seats (Total: 20)
	W 6:30pm - 9:00pm	ASY 1101

SOCY699M **Special Social Problems; Proseminar**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

0101	Brian Connor	Seats (Total: 5)
	Class time/details on ELMs	ONLINE

SOCY699U **Special Social Problems; Researching the Middle East: Comparative Historical and Cross-National Survey**

Credits: 3 Grading Method: Regular, Audit

0101	Mansoor Moaddel	Seats (Total: 20)
	Tu 6:30pm - 9:00pm	ASY 1101

SOCY699W **Special Social Problems; Combined Master's Research Paper**

Credits: 3 Grading Method: Regular, Audit

0101	Collin Mueller	Seats (Total: 10)
	Contact instructor or department for details.	

SOCY799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

SOCY898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

SOCY899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

SPAN Spanish Spring 2022

SPAN103 **Intensive Elementary Spanish**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a native/fluent speaker of Spanish. Credit only granted for: SPAN102 or SPAN103.

Covers speaking, reading, writing, listening, and culture of Spanish-speaking world.

0101	Jose Magro MWF 10:00am - 10:50am Tu 10:00am - 10:50am	Seats (Total: 25) JMZ 0205 JMZ 0205
0201	Jose Magro MWF 11:00am - 11:50am Tu 11:00am - 11:50am	Seats (Total: 25) JMZ 0103 JMZ 0103
0301	Jose Magro MWF 12:00pm - 12:50pm Tu 12:00pm - 12:50pm	Seats (Total: 25) JMZ 0103 JMZ 0103
0401	Jose Magro MWF 1:00pm - 1:50pm Tu 1:00pm - 1:50pm	Seats (Total: 25) JMZ 0103 JMZ 0103

SPAN169L **Special Topics in Study Abroad I; Spanish Language A1**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN169M **Special Topics in Study Abroad I; Spanish Language A2**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN169O **Special Topics in Study Abroad I; Beginner Spanish I**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN169P **Special Topics in Study Abroad I; Beginner Spanish II**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN169X **Special Topics in Study Abroad I; Elementary Spanish I**

Credits: 2-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN169Y **Special Topics in Study Abroad I; Elementary Spanish II**

Credits: 2-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN203 **Intensive Intermediate Spanish**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit CORE: HO

Prerequisite: SPAN103; or must have appropriate Foreign Language Placement Test (FLPT) score.
Restriction: Must not be a native/fluent speaker of Spanish.

Covers speaking, reading, writing, listening, and culture of Spanish-speaking world.

0101	Gianinna Malatesta MWF 10:00am - 10:50am Th 10:00am - 10:50am	Seats (Total: 25) JMZ 3120 JMZ 3120
0201	Maureen Wrightson MWF 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 25) JMZ 3205 JMZ 0103
0301	Andrea Torres Armas MWF 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 25) JMZ 0122 JMZ 2123

0401	Maureen Wrightson MWF 12:00pm - 12:50pm Th 12:00pm - 12:50pm	Seats (Total: 25) JMZ 2123 JMZ 0103
0501	Jorge Bayas MWF 1:00pm - 1:50pm Th 1:00pm - 1:50pm	Seats (Total: 25) JMZ 0208 JMZ 0208

SPAN204 **Spanish Grammar Review**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO

Prerequisite: SPAN203; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Not open to fluent/native speakers of Spanish.

An in-depth study and analysis of selected grammatical topics in a contextualized framework.

0101	Isabel Torrubia Gortari MWF 10:00am - 10:50am	Seats (Total: 25) JMZ 3203
0201	Daniela Bulansky TuTh 11:00am - 12:15pm	Seats (Total: 25) JMZ 0205
0301	Daniela Bulansky TuTh 12:30pm - 1:45pm	Seats (Total: 25) JMZ 0122
0401	Nidia Reyes TuTh 2:00pm - 3:15pm	Seats (Total: 25) JMZ 3120

SPAN206 **Spanish for Heritage Speakers I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Native or near native knowledge of and no formal education in Spanish.

Review of oral and written Spanish for students who have native or near native knowledge of, but no formal education in Spanish. Taught in Spanish.

Contact department for information to register for this course.

SPAN207 **Reading and Writing in Spanish**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Prerequisite: Must have completed or be concurrently enrolled in SPAN204; or must have appropriate Foreign Language Placement Test (FLPT) score.

Selected readings with emphasis on reading comprehension and the development of reading strategies. Work in composition writing and a review of selected grammatical topics. Complements material of SPAN204.

0101	Chila Hidalgo MWF 10:00am - 10:50am	Seats (Total: 25) JMZ 2207
0201	Chila Hidalgo MWF 1:00pm - 1:50pm	Seats (Total: 25) JMZ 2122
0301	Chila Hidalgo MWF 2:00pm - 2:50pm	Seats (Total: 25) JMZ 3120
0401	Cecilia Battauz TuTh 11:00am - 12:15pm	Seats (Total: 25) JMZ 0122
0501	Cecilia Battauz TuTh 12:30pm - 1:45pm	Seats (Total: 25) JMZ 2122

SPAN235 **Issues in Latin American Studies II**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: HO, D | General Education: DSHS, DSHU, DVUP

Cross-listed with: LACS235, PORT235. Credit only granted for: LASC235, PORT235, SPAN235, or LACS235. Formerly: LASC235.

Major issues shaping Latin American and Caribbean societies including the changing constructions of race, ethnicity, gender and class as well as expressions of popular cultures and revolutionary practices. Taught in English.

0101	Keisha Allan TuTh 11:00am - 12:15pm	Seats (Total: 30) KNI 1105

SPAN269A **Special Topics in Study Abroad II; B1 Intermediate Level Spanish I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN269B **Special Topics in Study Abroad II; B1 Intermediate Level Spanish II**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN269I **Special Topics in Study Abroad II; Intensive Intermediate Spanish**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN269L **Special Topics in Study Abroad II; Spanish Language B1**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN269V **Special Topics in Study Abroad II; Identities and Stereotypes in Latin America**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN301 **Advanced Grammar and Composition I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in SPAN207.

Practice of complex grammatical structures through reading and writing of compositions and essays. Specific lexical, syntactic, rhetorical, and stylistic devices will be highlighted.

0101	Ana Acedo Garcia	Seats (Total: 20)
	MWF 10:00am - 10:50am	JMZ 2120

0301	Ana Acedo Garcia MWF 12:00pm - 12:50pm	Seats (Total: 20) JMZ 2120
0401	Jackson Monzon TuTh 9:30am - 10:45am	Seats (Total: 20) JMZ 1117
0501	Marcela Risso TuTh 11:00am - 12:15pm	Seats (Total: 20) JMZ 1215
0601	Andres Garcia TuTh 12:30pm - 1:45pm	Seats (Total: 20) JMZ 1215

SPAN302 **Advanced Grammar and Composition II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN301.

Practice in and writing of different types of compositions and essays, including narrations, descriptions, and persuasive writing. Review of problematic syntactical structures.

Contact department for information to register for this course.

SPAN303 **Approaches to Cultural Materials in the Hispanic World**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Prerequisite: SPAN301. Recommended: May elect to take SPAN311 and/or SPAN316 in same semester as SPAN303.

Development of proficiency in critical thought through the reading, viewing, and analytical discussion of major genres and styles of cultural materials selected from Spanish-speaking world. Taught in Spanish.

0101	Chris Lewis MWF 10:00am - 10:50am	Seats (Total: 20) JMZ 1224
0201	Chris Lewis MWF 11:00am - 11:50am	Seats (Total: 20) JMZ 2123
0401	Mehl Penrose TuTh 9:30am - 10:45am	Seats (Total: 20) JMZ 1224

0501	Ana Rodriguez TuTh 11:00am - 12:15pm	Seats (Total: 20) JMZ 1224
0601	Eyda Merediz TuTh 12:30pm - 1:45pm	Seats (Total: 20) JMZ 1117

SPAN306 **Spanish for Heritage Speakers II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN206.

Practice of complex grammatical structures through reading and writing of compositions and essays. Specific lexical, syntactic, rhetorical and stylistic devices will be highlighted. Designed for Spanish speakers educated in English. Taught in Spanish.

0101	Evelyn Canabal-Torres MWF 11:00am - 11:50am	Seats (Total: 20) JMZ 1120

SPAN307 **Oral Communication Skills for Heritage Speakers of Spanish**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Native or near native knowledge of and no formal education in Spanish.

Development of techniques for formal public speaking in Spanish. Writing and delivering oral presentations for varied audiences and purposes. Includes strategies for organization, the use of rhetorical patterns, and the development of effective discourse. Designed for Heritage speakers of Spanish with native or near native knowledge of Spanish, but no formal education in Spanish. Taught in Spanish.

0101	Nidia Reyes TuTh 11:00am - 12:15pm	Seats (Total: 20) JMZ 3205

SPAN311 **Advanced Communication I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN301; and must have completed or be concurrently enrolled in SPAN303. Restriction: Must not be a native/fluent speaker of Spanish.

Further development of listening, speaking, and writing skills in Spanish. Opportunity to develop oral and written fluency, improve pronunciation and increase vocabulary. Individual and/or group oral presentations. Taught in Spanish.

0101	Ana Acedo Garcia MWF 11:00am - 11:50am	Seats (Total: 20) JMZ 0118
0201	Ana Acedo Garcia MWF 1:00pm - 1:50pm	Seats (Total: 20) JMZ 1215
0301	Andres Garcia TuTh 11:00am - 12:15pm	Seats (Total: 20) JMZ 1122
0401	Daniela Hernandez TuTh 12:30pm - 1:45pm	Seats (Total: 20) JMZ 1120

SPAN316 **Spanish Translation I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN301; and must have completed or be concurrently enrolled in SPAN303.

Translation of texts into Spanish and/or English. Taught in Spanish.

0101	Luis Charry MWF 12:00pm - 12:50pm	Seats (Total: 20) JMZ 1117
0201	Marcela Risso TuTh 12:30pm - 1:45pm	Seats (Total: 20) JMZ 2117

SPAN331 **Spanish Culture, Civilization and Literature I: Medieval Times**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

The exploration of cultures of the Iberian Peninsula from its origins until the 15th century as well as the study of historical and political events that gave rise to the Spanish state. Taught in Spanish.

Contact department for information to register for this course.

SPAN332 **Spanish Culture, Civilization and Literature II: Renaissance and Baroque**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

An overview of cultural and literary production of Spain from the late 15th through late 17th centuries, exploring the production of literary texts in their socio-historical, political, religious and cultural contexts and development. Taught in Spanish.

0101	Hernan De Pinillos	Seats (Total: 25)
	MWF 10:00am - 10:50am	ONLINE

SPAN333 Spanish Culture, Civilization and Literature III: Modern Times

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

An overview of cultural and literary production of Spain from the late 17th century through the present day, exploring the production of literary texts in their socio-historical, political, religious and cultural contexts and development. Taught in Spanish.

0101	Jose Naharro-Calderon	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	JMZ 1224

SPAN335 Cultural History of Seville

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN301. Recommended: SPAN303.

Cultural History of Seville: An exploration of the Iberian, Mediterranean, and transatlantic contexts shaping the history, identity, and cultural and artistic expressions of Seville. Includes texts from the Middle Ages to the twenty first century. Focus on the historical, literary and cultural evolution of Seville from the Roman Empire and the Moorish occupation to the discovery and conquest of America until present times. Taught in Spanish.

Contact department for information to register for this course.

SPAN361 Latin American Literatures and Cultures I: From Pre-Columbian to Colonial Times

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

Overview of cultural history of Latin America from pre-Columbian civilizations to the Colonial period, exploring the foundations of the Spanish American cultural and literary tradition to approximately 1770. Taught in Spanish.

Contact department for information to register for this course.

SPAN362 **Latin American Literatures and Cultures II: From Independence to Nation Formation**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

An overview of cultural and literary production of Latin America from the 18th Century to approximately 1900, exploring the production of literary texts in their socio-historical, political, and cultural contexts and development. Taught in Spanish.

0101	Luis Charry MWF 10:00am - 10:50am	Seats (Total: 25) JMZ 2122
0201	Marcela Risso TuTh 2:00pm - 3:15pm	Seats (Total: 25) JMZ 0208

SPAN363 **Latin American Literatures and Cultures III: From Modernism to Neo-Liberalism**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

An overview of cultural and literary production of Latin America from the late 19th through the early 21st centuries, exploring the production of literary texts in their socio-historical, political, and cultural contexts and development. Taught in Spanish.

0201	Ryan Long TuTh 11:00am - 12:15pm	Seats (Total: 25) JMZ 3120
0301	Saul Sosnowski TuTh 2:00pm - 3:15pm	Seats (Total: 25) JMZ 2207

SPAN369A **Special Topics in Study Abroad III; Advanced Oral Communication in Spanish**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369B **Special Topics in Study Abroad III; Advanced Academic Writing in Spanish**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369F **Special Topics in Study Abroad III; Spanish Oral Skills through Theatre**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369G **Special Topics in Study Abroad III; Spanish for the Health Professional**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369I **Special Topics in Study Abroad III; Advanced Studies in Spanish**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369J **Special Topics in Study Abroad III; Advanced Spanish Expression & Grammar I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369M **Special Topics in Study Abroad III; Spanish Language B2**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369O **Special Topics in Study Abroad III; Spanish Conversation and Oral Skills**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369Q **Special Topics in Study Abroad III; Spanish Phonetics and Phonology**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369R **Special Topics in Study Abroad III; Advanced Reading Skills in Spanish**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369T **Special Topics in Study Abroad III; Angloamerican Travelers in Spain**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369V **Special Topics in Study Abroad III; Advanced Present-Day Spanish Usage**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369W **Special Topics in Study Abroad III; Spanish Stylistics: Advanced Spanish Writing and Stylistics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369Y **Special Topics in Study Abroad III; B2 Advanced Level Spanish 1**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369Z **Special Topics in Study Abroad III; B2 Advanced Level Spanish 2**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN370 **Spanish for Business I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN303; and (SPAN311 or SPAN316). Credit only granted for: SPAN315 or SPAN370. Formerly: SPAN315.

Business Spanish terminology, vocabulary and practices. Emphasis on everyday spoken and written Spanish. Readings and discussions of Spanish commercial topics. May include exposure to Spanish commercial topics. May include exposure to Spanish business environments. Taught in Spanish.

0101	Maria Herrera Arvay TuTh 11:00am - 12:15pm	Seats (Total: 25) JMZ 0125
0201	Juan Diaz MWF 11:00am - 11:50am	Seats (Total: 25) JMZ 1224

SPAN371 **Spanish for the Health Professions**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

Exploration of cultural and linguistic skills for the health professions including vocabulary, listening, speaking, reading and strategies. No experience in the professional area necessary. Taught in Spanish.

0101	Evelyn Canabal-Torres MWF 12:00pm - 12:50pm	Seats (Total: 25) JMZ 2206

0201	Evelyn Canabal-Torres	Seats (Total: 25)
	MWF 10:00am - 10:50am	JMZ 0103

SPAN373 **Spanish in the Media**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN303; and (SPAN311 or SPAN316). Or permission of instructor. Credit only granted for: SPAN373 or SPAN359A. Formerly: SPAN359A.

Exploration of Spanish in current events in the Hispanic world in local and international press and varied media, and production of journalistic articles.

0101	Chila Hidalgo	Seats (Total: 25)
	MWF 11:00am - 11:50am	JMZ 1122

SPAN386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

SPAN388W **Writing Center Internship**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail General Education: DSSP

Prerequisite: Permission of the Writing Center (1205 Tawes Hall). Repeatable to 12 credits. Cross-listed with: ENGL388W. Credit only granted for: ENGL388W or SPAN388W.

Examines face-to-face and online writing center theory and practice through readings, exercises, and supervised tutoring. Students investigate the writing process and help other writers to negotiate it.

Prerequisite: permission of department. Repeatable to 12 credits. To apply, go to http://www.english.umd.edu/academics/writingcenter/ internship. Cross-listed with ENGL388W. Credit only greanted for ENGL388W or SPAN388W. Students taking ENGL388W for the first time should register for section 0101 for 4 credits. When taking the course a gain in subsequent semesters, students should register for 2001.

0101	Thomas Earles	Seats (Total: 20)
	M 3:30pm - 6:00pm	TWS 3252

2001	Thomas Earles	Seats (Total: 4)
	Contact instructor or department for details.	

SPAN399 **Independent Study in Spanish**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Specific readings in literature or a translation project under the supervision of a faculty member of the department.

Prerequisite: permission of department.

Contact department for information to register for this course.

SPAN401 **Advanced Composition I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN302; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Compositions and essays with emphasis on stylistics, idiomatic and syntactic structures. Organization and writing of research papers.

Contact department for information to register for this course.

SPAN402 **Advanced Composition II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN401; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Compositions and essays with emphasis on stylistics, idiomatic and syntactic structures. Organization and writing of research papers.

Contact department for information to register for this course.

SPAN408J **Special Topics in Iberian and Latin American Studies; Contemporary Mexican Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics in (a) the literature and film of Spain, Spanish-speaking Latin America, and U.S. Latina/o communities; (b) Spanish linguistics; and (c) Spanish, Latin American, and U.S. Latino cultural studies. Each topic will be announced when the course is offered.

Contact department for information to register for this course.

SPAN408N **Special Topics in Iberian and Latin American Studies; Love, Science, Religion and the Pursuit of Criollo Independeence in 18th-Century Mexico**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics in (a) the literature and film of Spain, Spanish-speaking Latin America, and U.S. Latina/o communities; (b) Spanish linguistics; and (c) Spanish, Latin American, and U.S. Latino cultural studies. Each topic will be announced when the course is offered.

Contact department for information to register for this course.

SPAN408Q **Special Topics in Iberian and Latin American Studies; Representations of Childhood and Youth in Latin American Literature and Film**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics in (a) the literature and film of Spain, Spanish-speaking Latin America, and U.S. Latina/o communities; (b) Spanish linguistics; and (c) Spanish, Latin American, and U.S. Latino cultural studies. Each topic will be announced when the course is offered.

Prerequisites: SPAN331, SPAN332, SPAN333, SPAN361, SPAN362, or SPAN363; or permission of instructor. This course focuses on representations of childhood a nd adolescence in films and works of fictions from various Latin American nations and regions. Students will analyze short stories, novels, and films that depict the course s theme in different ways. One of the course's central topics will be the concept of growth or development, which connects to the genre of the Bildungsroman or coming-of-age story. Therefore, another important topic will be social and political structures that challenge the idea of development, and which are often related to social class, gender, sexuality, and ethnicity.

0101	Ryan Long	Seats (Total: 25)
	TuTh 9:30am - 10:45am	JMZ 0103

SPAN408R **Special Topics in Iberian and Latin American Studies; Aguacatero Dreams: Central Americans in the United States**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics in (a) the literature and film of Spain, Spanish-speaking Latin America, and U.S. Latina/o communities; (b) Spanish linguistics; and (c) Spanish, Latin American, and U.S. Latino cultural studies. Each topic will be announced when the course is offered.

Prerequisites: SPAN331, SPAN332, SPAN333, SPAN361, SPAN362, or SPAN363; or permission of instructor. Cross-listed with USLT428R. Credit only granted for SPAN408R or USLT428R. This course explores the history, geopolitics, migrations , and cultural representations of Central Americans in the United States, with special emphasis on the greater Washington, D.C. metropolitan area. We will examine how Central American identities are transnationalized and translocalized and why the DMV is home to one of the largest concentrations of Central Americans, especially Salvadorans, in the U.S. We will study novels, short stories, poetry, spoken word/performances, films, music, photography, zines, social media, and other interdisciplinary re/sources and engage one-on-one with local and international artists, activists, and community orgs. Students should expect to participate in a community engagement project. Taught in Spanish and discussions in Spanglish.

0101	Ana Rodriguez	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	JMZ 1215

SPAN408Y **Special Topics in Iberian and Latin American Studies; Contemporary Spanish Short Story**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics in (a) the literature and film of Spain, Spanish-speaking Latin America, and U.S. Latina/o communities; (b) Spanish linguistics; and (c) Spanish, Latin American, and U.S. Latino cultural studies. Each topic will be announced when the course is offered.

Contact department for information to register for this course.

SPAN408Z **Special Topics in Iberian and Latin American Studies; 20th Century Contemporary Latin American Cinema**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics in (a) the literature and film of Spain, Spanish-speaking Latin America, and U.S. Latina/o communities; (b) Spanish linguistics; and (c) Spanish, Latin American, and U.S. Latino cultural studies. Each topic will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409F **Great Themes of the Hispanic Literatures; Literary Myths and Philosophy in the European Tradition**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409M **Great Themes of the Hispanic Literatures; Contemporary Spain through Spanish Cinema**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409N **Great Themes of the Hispanic Literatures; 20th Century Spanish History and Cinema**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409O **Great Themes of the Hispanic Literatures; Images of Spain in Contemporary Cinema**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409W **Great Themes of the Hispanic Literatures; Women Writers of Spain**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409Y **Great Themes of the Hispanic Literatures; Filmmaking in Spain**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409Z **Great Themes of the Hispanic Literatures; Spanish Film and Theatre**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN422 **Intercultural Communication and Negotiation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

Prerequisite: SPAN370 OR SPAN371 OR SPAN373 OR SPAN 374. Restriction: Junior standing or higher.

Focuses on the relationship of language and culture of those operating in world markets. Particular attention will be given to intercultural communication, linguistic systems, culture specific perceptions of, and negotiation with, the Spanish-speaking world. Taught in Spanish.

Contact department for information to register for this course.

SPAN426 **Hispanic Linguistics III: Language in Use**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN303; and SPAN311 or SPAN316 or SPAN325. Also offered as: SPAN626. Credit only granted for: SPAN426 or SPAN626.

Designed for students without previous experience in Linguistics. Focus on language variation and use, linguistic change, and bilingualism. Taught in Spanish.

0101	Manel Lacorte	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	JMZ 1122

SPAN430 **Seeking Adventure and Glory: Don Quixote**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: One of the following: SPAN331, SPAN332, SPAN333, SPAN361, SPAN362, or SPAN363; or permission of instructor. Credit only granted for: SPAN430 or SPAN453. Formerly: SPAN430.

Widely acknowledged as the first modern novel, Don Quixote tells the story of a middle-aged Spanish gentleman who, obsessed with the chivalrous ideals found in romantic tales, decides to take up his lance and sword to defend the helpless and destroy the wicked. Seated upon his horse Rocinante and accompanied by his loyal squire Sancho Panza, Don Quixote sets out on the roads of Spain seeking adventure and glory. The course will consist of a close reading of Don Quixote. We will analyze and comment on the novel at the literal and historical levels, as well as in its symbolic and widely anthropological dimensions. We will also establish a dialogue between Don Quixote and the narrative and philosophical traditions of Europe, United States and Latin America. Taught in Spanish.

Contact department for information to register for this course.

SPAN439G **Selected Topics in Spanish; Iberian Nations, Narrations and Imaginations**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics and requirements will vary.

Prerequisites: SPAN331, SPAN332, SPAN333, SPAN361, SPAN362, or SPAN363; or permission of instructor. Exploration of textual and visual examples around historial imaginaries of the Iberian nations through State Lead Nationalisms (Portugal/Spain) vs. State Seeking Nationalisms (Catalonia & Euskadi) through cultural, memory and political amalgams, trajectories, tensions, and/or "democides".

0101	Jose Naharro-Calderon	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	JMZ 2207

SPAN449A **Special Topics in Spanish Civilization; Spanish Civilization**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An intensive study of a selected topic related to Spanish civilization.

Contact department for information to register for this course.

SPAN449C **Special Topics in Spanish Civilization; History of Spain II: 20th Century**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An intensive study of a selected topic related to Spanish civilization.

Contact department for information to register for this course.

SPAN449J **Special Topics in Spanish Civilization; Mosaic: Jews, Muslims and the Spanish Experience**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An intensive study of a selected topic related to Spanish civilization.

Contact department for information to register for this course.

SPAN449M **Special Topics in Spanish Civilization; Barcelona and Madrid: Contemporary Film and Theatre**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An intensive study of a selected topic related to Spanish civilization.

Contact department for information to register for this course.

SPAN449Q **Special Topics in Spanish Civilization; 20th Century History of Spain and the Basque Country**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An intensive study of a selected topic related to Spanish civilization.

Contact department for information to register for this course.

SPAN449Z **Special Topics in Spanish Civilization; Literature and Cinema in the Contemporary City**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An intensive study of a selected topic related to Spanish civilization.

Contact department for information to register for this course.

SPAN462 **Twentieth Century Drama**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN333, SPAN361, SPAN331, SPAN332, SPAN362, or SPAN363.

Significant plays of the twentieth century.

Contact department for information to register for this course.

SPAN464 **Contemporary Spanish Poetry**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN333, SPAN361, SPAN331, SPAN332, SPAN362, or SPAN363.

Spanish poetry from the generation of 1927 to the present.

Contact department for information to register for this course.

SPAN466 **The Contemporary Spanish Novel**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN333, SPAN361, SPAN331, SPAN332, SPAN362, or SPAN363.

The novel and the short story from 1940 to the present.

Contact department for information to register for this course.

SPAN469A **Study Abroad Special Topics IV; Advanced Topics in Spanish Language**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN469C **Study Abroad Special Topics IV; Composition**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN470 **Spanish for Business II**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed SPAN370. Restriction: Sophomore standing or higher. Credit only granted for: SPAN470 or SPAN480.

Business Spanish terminology, vocabulary and practice. Emphasis on everyday spoken and written Spanish. Readings and discussions of international topics. Cross-cultural considerations relative to international business operations, including exporting and banking. Taught in Spanish.

0101	Sofia Maurette	Seats (Total: 25)
	MWF 11:00am - 11:50am	JMZ 3120

SPAN478C **Special Topics in United States Latino Cultures; Spanish as a Heritage Language: Theory and Pedagogy**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Explores special topics in US Latino Cultures, ranging from Chicano, Nuyorican, Cuban-American, Dominican, Central-American and other border cultural identities.

Cross-listing with SPAN678C. Credit only granted for SPAN478C or SPAN678C. Designed for educators and researchers, this course introduces students to the developing field of Spanish as a Heritage Language by means of exploring key topics in SHL research and education in the US, including HL speakers bilingualism, the sociolinguistic profiles of SHL speakers and learners, and different pedagogical proposals for teaching SHL. All course materials will be approached considering their research as well as teaching-oriented perspectives and implications. Students will work with oral, written, and multimodal data to understand relevant issues in SHL and develop research-oriented orteaching-oriented projects. Taught in Spanish.

0101	Elisa Gironzetti M 3:30pm - 6:00pm	Seats (Total: 25) JMZ 2206

SPAN479 **Honors Thesis**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail, Audit

Researching and writing an honors thesis under the direction of a professor.

Contact department for information to register for this course.

SPAN495 **Honors Reading**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must be in Spanish and Portuguese Honors; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Supervised reading.

Contact department for information to register for this course.

SPAN626 **Hispanic Linguistics II: Language in Use**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: SPAN301; or permission of ARHU-School of Languages, Literatures, and Cultures department. Jointly offered with SPAN426. Credit only granted for: SPAN426 or SPAN626.

This course will focus on issues related to language variation and use with a more in-depth analysis of the semantics, pragmatics, and sociolinguistics of Spanish. Students will be introduced to current research in the fields of dialectology, bilingualism and language policy, and the social aspects of language change. This course will include an analysis of current research as it relates to the field of linguistics and other social sciences.

0101	Manel Lacorte TuTh 3:30pm - 4:45pm	Seats (Total: 25) JMZ 1122

SPAN678C **Special Topics in United States Latino Cultures; Spanish as a Heritage Language: Theory and Pedagogy**

Credits: 3 Grading Method: Regular, Audit

Introduction to current trends in US Latino Cultures, including topics related to Spanish as a heritage language and linguistic attitudes and ideologies.

Cross-listing with SPAN478C. Credit only granted for SPAN478C or SPAN678C. Designed for educators and researchers, this course introduces students to the developing field of Spanish as a Heritage Language by means of exploring key topics in SHL research and education in the US, including HL speakers bilingualism, the sociolinguistic profiles of SHL speakers and learners, and different pedagogical proposals for teaching SHL. All course materials will be approached considering their research as well as teaching-oriented perspectives and implications. Students will work with oral, written, and multimodal data to understand relevant issues in SHL and develop research-oriented orteaching-oriented projects. Taught in Spanish.

0101	Elisa Gironzetti	Seats (Total: 25)
	M 3:30pm - 6:00pm	JMZ 2206

SPAN699 **Independent Study in Spanish**

Credits: 1-3 Grading Method: Regular, Audit

This course is designed to provide graduate students an opportunity to pursue independent study under the supervision of a member of the department.

Contact department for information to register for this course.

SPAN798N **Open Seminar; Arlt, Borges, Cortazar, and Beyond**

Credits: 3 Grading Method: Regular, Audit

Roberto Arlt (1900-1942), Jorge Luis Borges (1899-1986) a nd Julio Cort zar (1914-1984) are markers in Argentina's literary production (though not just there). Through a select number of texts from each of them we'll explore how they viewed Buenos Aires, its inhabitants and its cultures and, through the prism of the city, the world in which they were written. We ll also consider how some of their texts were tran sformed in film versions. To varying degrees, their works never ceased to be read by other writers. We'd like to see how and trace los pasos en las huellas."

0101	Saul Sosnowski	Seats (Total: 10)
	Th 5:00pm - 7:30pm	JMZ 2207

SPAN798X **Open Seminar; Critical Turns: A Tool Box**

Credits: 3 Grading Method: Regular, Audit

Critical Turns is a seminar designed to explore theoretical approaches that would help us read and reflect on a variety of cultural artifacts. The seminar does not intend to trace a linear survey of literary and cultural theories that exhaust all the possibilities we have as literary and cultural critics. On the contrary, it will function as a toolbox (caja de herramientas), a repository of instruments to help us make visible and legible cultural practices. Thus, we will revisit different approaches (tools) to explore the many critical turns (giros) that are current today.

0101	Laura Demaria	Seats (Total: 10)
	W 5:00pm - 7:30pm	JMZ 2207

SPAN798Y **Open Seminar; Deviance and Disorder in Revolutionary and Restoration Spain (1868-1898)**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

This seminar examines representations of gender, gender expression, and sexuality in Realist and Naturalist literature produced between the Glorious Revolution and the Disaster of 1898. Mobilizing current critical and theoretical approaches, the course interrogates the discourses within Spanish society that focus on normative and transgressive expressions of femininity, masculinity, and sexuality. Within the scope of this interrogation, we will discuss scientific and medical contributions to understandings of the body, genders, and sexualities and their impact on creative writing; gender deviance and sexual perversions; and sex work as a target of both public hygiene campaigns and the novel of this period.

0101	Mehl Penrose	Seats (Total: 10)
	Tu 4:00pm - 6:30pm	JMZ 2125

SPAN799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

SPAN898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

SPAN899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

SPHL Public Health Spring 2022

SPHL100 **Foundations of Public Health**

Credits: 3

Grading Method: Regular, Pass-Fail

Restriction: Must be in a major in SPHL-School of Public Health. Credit only granted for: SPHL100, PHSC300 or SPHL600.

An overview of the goals, functions, and methods of public health. After an introduction to the core concepts and tools used in public health research and practice, applications of these methodologies are considered in the context of current controversies/problems in public health. Students work together to develop strategies for prevention and control that take into consideration different points of view, outside research, and impacts on individuals and communities.

For those able to attend, the first lecture will be held synchronously on Monday, January 25 from 10am-10:50am. More information will be available on ELMS.

0101	Sylvette La Touche-Howard MW 10:00am - 10:50am F 8:00am - 8:50am	Seats (Total: 20) HJP 0226 SPH 0227	Discussion
0102	Sylvette La Touche-Howard MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 20) HJP 0226 SPH 0227	Discussion
0103	Sylvette La Touche-Howard MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 20) HJP 0226 SPH 0227	Discussion
0104	Sylvette La Touche-Howard MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 20) HJP 0226 SPH 0227	Discussion
0105	Sylvette La Touche-Howard MW 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 20) HJP 0226 SPH 0227	Discussion
0106	Sylvette La Touche-Howard MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 20) HJP 0226 SPH 0227	Discussion
0107	Sylvette La Touche-Howard MW 10:00am - 10:50am F 2:00pm - 2:50pm	Seats (Total: 20) HJP 0226 SPH 0227	Discussion

0108	Sylvette La Touche-Howard MW 10:00am - 10:50am F 3:00pm - 3:50pm	Seats (Total: 20) HJP 0226 SPH 0227	Discussion
0109	Sylvette La Touche-Howard MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 20) HJP 0226 ATL 2316	Discussion
0110	Sylvette La Touche-Howard MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 20) HJP 0226 ATL 2316	Discussion
0201	Sylvette La Touche-Howard MW 12:00pm - 12:50pm F 8:00am - 8:50am	Seats (Total: 20) HJP 0226 ATL 2428	Discussion
0202	Sylvette La Touche-Howard MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 20) HJP 0226 ATL 2428	Discussion
0203	Sylvette La Touche-Howard MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 20) HJP 0226 ATL 2428	Discussion
0204	Sylvette La Touche-Howard MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 20) HJP 0226 ATL 1114	Discussion
0205	Sylvette La Touche-Howard MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 20) HJP 0226 ATL 1114	Discussion
0206	Sylvette La Touche-Howard MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 20) HJP 0226 ATL 1114	Discussion
0207	Sylvette La Touche-Howard MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 20) HJP 0226 ATL 1114	Discussion

0208	Sylvette La Touche-Howard MW 12:00pm - 12:50pm F 3:00pm - 3:50pm	Seats (Total: 20) HJP 0226 ATL 1114	Discussion
0209	Sylvette La Touche-Howard MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 20) HJP 0226 ATL 2316	Discussion

SPHL246 **Terp Restoration**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Restriction: Students must be undergraduate majors within the School of Public Health; and permission of instructor.

This lab course is designed to assist students in improving academic strategies, learning time management practices, interacting with the faculty and greater campus community, and developing professional career aspirations. The focus will be on an exploration of the academic environment, campus resources, self-discovery tools, and skill development. Utilizing an interactive experience through facilitated discussion that develops positive relationships, students will actively explore academic opportunities offered through the School of Public Health and the University of Maryland.

0201	Renee Stokes Tu 11:00am - 12:15pm	Seats (Total: 20) SPH 0116B

SPHL291 **Does Science Support Nontraditional Healing Practices?**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSNS, SCIS

Recommended: Successful completion of English composition course.

Does yoga improve the health of wounded warriors and/or breast cancer survivors? Can mindfulness enhance your business success and family relationships, or is it social media hype? Do you know what reflexology is, and does it help reduce your personal stress level? Increasing numbers of people are using nutritional supplements, meditation, yoga and other forms of exercise, acupuncture and experiences in nature to reduce stress levels and improve overall health and well-being. In the media, scientists to celebrities have alternately endorsed or rejected claims about how these and other nontraditional health practices benefit health and well-being. Students will sample some of these nontraditional health practices and explore whether these practices can enhance their own well-being. General scientific methods for health research will be introduced and students will use this knowledge to evaluate the existing scientific research on these practices. Students will also evaluate whether popular and media translation of scientific research on these practices is fact-based.

0101	Robin Puett Tu 9:30am - 10:45am Th 9:30am - 10:45am	Seats (Total: 20) ATL 2316 ONLINE

SPHL333 **Fundamentals of Undergraduate Teaching for Education Assistants and Mentors (UTEAM)**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Corequisite: SPHL399. Restriction: Permission of the instructor; and permission of the School of Public Health. Additional information: This course must be taken concurrently with SPHL399 the first term in which a student is a UTA. Preference is given to students within an SPHL major.

Supports the professional and personal development of UG students in the UTEAM program. Must be completed concurrently with the first semester of providing UTEAM support to a specific course. UTEAM members are dedicated student learners who provide peer education support for specific course as part of the teaching team and emphasizes: 1) introduction to teaching, learning, literature and practice, 2) collaboration with other UTEAM members, faculty and staff as a learning community, and 3) reflection on the knowledge and skills developed through course participation.

0101	Cynthia Kershaw Class time/details on ELMs	Seats (Total: 30) ONLINE

SPHL399 **Academic Peer Teaching and Mentoring in Public Health**

Credits: 1-3 Grading Method: Regular, Pass-Fail

An independent study course for the Undergraduate Teaching and Mentoring (UTEAM) program within the School of Public Health. Students will apply evidence-based research while assisting peers with the understanding and application of course content. Specific responsibilities may vary dependent upon the course instructor. The primary roles of the UTEAM members will be to provide in-class support and/or external course support through review sessions, discussions sessions, laboratory support, group tutoring and office hours.

0101	Edmond Shenassa Contact instructor or department for details.	Seats (Total: 4)
0102	Kerry Tripp Contact instructor or department for details.	Seats (Total: 4)
0103	Robin Puett Contact instructor or department for details.	Seats (Total: 4)

0104	Elisabeth Maring Contact instructor or department for details.	Seats (Total: 4)
0105	Natasha Williams Contact instructor or department for details.	Seats (Total: 4)
0106	Marie Thoma Contact instructor or department for details.	Seats (Total: 4)
0201	James Butler Contact instructor or department for details.	Seats (Total: 4)
0202	Sandra Saperstein Contact instructor or department for details.	Seats (Total: 4)
0203	Jennifer Robinson Contact instructor or department for details.	Seats (Total: 4)
0204	Azieb Kidanu Contact instructor or department for details.	Seats (Total: 4)
0205	Evelyn King-Marshall Contact instructor or department for details.	Seats (Total: 4)
0206	Instructor: TBA Contact instructor or department for details.	Seats (Total: 4)
0301	Jeffrey Beans Contact instructor or department for details.	Seats (Total: 4)
0302	Elizabeth Brown Contact instructor or department for details.	Seats (Total: 4)
0303	Steven Prior Contact instructor or department for details.	Seats (Total: 4)
0304	Joanne Klossner Contact instructor or department for details.	Seats (Total: 4)
0305	Jay Goldstein Contact instructor or department for details.	Seats (Total: 4)
0306	Shannon Jette Contact instructor or department for details.	Seats (Total: 4)

0307	Sarah Glancy Contact instructor or department for details.	Seats (Total: 4)
0308	Sushant Ranadive Contact instructor or department for details.	Seats (Total: 4)
0401	Typhanye Dyer Contact instructor or department for details.	Seats (Total: 4)
0402	Neil Sehgal Contact instructor or department for details.	Seats (Total: 4)
0403	Kendall Bustad Contact instructor or department for details.	Seats (Total: 4)
0404	Jessica O'Hara Contact instructor or department for details.	Seats (Total: 4)
0405	Amir Sapkota Contact instructor or department for details.	Seats (Total: 4)
0406	Instructor: TBA Contact instructor or department for details.	Seats (Total: 4)
0407	Instructor: TBA Contact instructor or department for details.	Seats (Total: 4)
0408	Steven Ault Contact instructor or department for details.	Seats (Total: 4)
0501	Sylvette La Touche-Howard Contact instructor or department for details.	Seats (Total: 4)
0502	Renee Stokes Contact instructor or department for details.	Seats (Total: 4)
0503	Taylor Sanders Contact instructor or department for details.	Seats (Total: 4)
0504	Instructor: TBA Contact instructor or department for details.	Seats (Total: 4)
0505	Instructor: TBA Contact instructor or department for details.	Seats (Total: 4)

0506	Instructor: TBA Contact instructor or department for details.	Seats (Total: 4)
0601	Tia Cunningham Contact instructor or department for details.	Seats (Total: 4)
0602	Instructor: TBA Contact instructor or department for details.	Seats (Total: 4)
0603	Instructor: TBA Contact instructor or department for details.	Seats (Total: 4)

SPHL600 **Foundations of Public Health**

Credits: 3 Grading Method: Regular

Restriction: Must be a graduate student within the School of Public Health. Credit only granted for: SPHL100, PHSC300 or SPHL600.

An overview of the goals, functions, and methods of public health. After an introduction to the core concepts and tools used in public health research and practice, applications of these methodologies are considered in the context of current controversies/problems in public health. Students work together to develop strategies for prevention and control that taken into consideration different points of view, outside research, and impacts on individuals and communities.

0101	Sylvette La Touche-Howard Class time/details on ELMs Th 3:00pm - 4:00pm	Seats (Total: 8) ONLINE JMZ 1103	 Discussion

SPHL610 **Program and Policy Planning, Implementation, and Evaluation**

Credits: 5 Grading Method: Regular, Audit

Recommended: Completion of SPHL 601, 602, and 603 with a grade of B- or better in each. Note that completion of SPHL 601, 602, and 603 with a B- or better is a graduation requirement for the MPH/MHA degrees; and concurrent enrollment in SPHL 611. Restriction: Must be in a graduate student in SPHL-School of Public Health.

This second course in the MPH/MHA integrated core sequence will prepare students to engage in the important tasks of assessing population and patient needs, implementing and evaluating culturally appropriate public health programs, policies, and interventions, and pursuing appropriate resources to support activities through the policy process and via effective use of power in the face of competing interests. The course will be a mix of individual and team-based assignments based upon an existing or newly identified problem, in addition to case studies, interactive simulations, and applied writing assignments.

0101	James Butler M 4:15pm - 6:15pm Class time/details on ELMs W 6:30pm - 7:30pm	Seats (Total: 22) PLS 1140 ONLINE ATL 2316	Discussion
0102	James Butler M 4:15pm - 6:15pm Class time/details on ELMs W 7:30pm - 8:30pm	Seats (Total: 22) PLS 1140 ONLINE ATL 2316	Discussion
0103	James Butler M 4:15pm - 6:15pm Class time/details on ELMs W 6:30pm - 7:30pm	Seats (Total: 22) PLS 1140 ONLINE ATL 0201	Discussion
0104	James Butler M 4:15pm - 6:15pm Class time/details on ELMs W 7:30pm - 8:30pm	Seats (Total: 22) PLS 1140 ONLINE ATL 0201	Discussion
PLB1	Steven Ault, Priscilla Novak Class time/details on ELMs *Must be in Behavior and Community Health, Online. All other graduate students must request permission. Contact oes@umd.edu.*	Seats (Total: 20) ONLINE	
PLH1	Priscilla Novak, Steven Ault Class time/details on ELMs *Must be in Public Health Practice and Policy, Online.*	Seats (Total: 28) ONLINE	
PLP1	Steven Ault, Priscilla Novak Class time/details on ELMs *Must be in Health Administration, Online.*	Seats (Total: 1) ONLINE	
PWPB	Priscilla Novak, Steven Ault Class time/details on ELMs *Must be in Graduate Certificate in Principles of Public Health program. All other graduate students must request permission. Contact oes@umd.edu.*	Seats (Total: 2) ONLINE	

SPHL611 Public Health Ethics

Credits: 1

Grading Method: Regular, Audit

Prerequisite: Must have completed SPHL601; or permission of instructor. Restriction: Must be a graduate student in the School of Public Health. Credit only granted for: EPIB641, KNES689Y, or SPHL611.. Formerly: EPIB641, KNES689Y.

Overview and discussion of ethical issues that face public health practitioners.

0101	Lauren Edelstein **Meets January 24, 2022 - March 18, 2022** M 6:30pm - 8:30pm Class time/details on ELMs	Seats (Total: 45) TWS 1310 ONLINE
0201	Lauren Edelstein **Meets March 21, 2022 - May 10, 2022** M 6:30pm - 8:30pm Class time/details on ELMs	Seats (Total: 45) TWS 1310 ONLINE
PLB1	Evelyn King-Marshall **Meets January 24, 2022 - March 18, 2022** Class time/details on ELMs *Must be in Behavior and Community Health, Online. All other graduate students must request permission. Contact oes@umd.edu.*	Seats (Total: 20) ONLINE
PLH1	Evelyn King-Marshall **Meets January 24, 2022 - March 18, 2022** Class time/details on ELMs *Must be in Public Health Practice and Policy, Online.*	Seats (Total: 28) ONLINE
PLP1	Evelyn King-Marshall **Meets January 24, 2022 - March 18, 2022** Class time/details on ELMs *Must be in Health Administration, Online.*	Seats (Total: 1) ONLINE
PWPB	Evelyn King-Marshall **Meets January 24, 2022 - March 18, 2022** Class time/details on ELMs *Must be in Graduate Certificate in Principles of Public Health program. All other graduate students must request permission. Contact oes@umd.edu.*	Seats (Total: 2) ONLINE

SPHL612 **Research Ethics**

Credits: 1 | Grading Method: Regular, Audit

Restriction: Must be a graduate student in the School of Public Health. Credit only granted for: EPIB641, KNES689Y or SPHL612. Formerly: EPIB641, KNES689Y.

Overview and discussion of ethical issues that face public health researchers.

0101	Stephen Roth	Seats (Total: 12)
	Meets January 24, 2022 - March 11, 2022	
	F 9:00am - 10:50am	ATL 0201

SPHL620 **Leadership, Teams, and Coalitions: Policy to Advocacy**

Credits: 2 | Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Must have completed SPHL610. Restriction: Must be a graduate student in the School of Public Health.

Students learn team building, leadership, and advocacy skills through the development and presentation of a policy brief on an urgent public health issue. The class will use a combination of brief lectures, discussions, and planned activities on how to develop a policy briefing. Students will have an inter-professional experience during which they will discuss possible approaches to developing policies on their public health issues while practicing team building skills. Class will culminate with presentation of policy briefs through a persuasive advocacy speech.

Contact department for information to register for this course.

STAT Statistics and Probability Spring 2022

STAT100 **Elementary Statistics and Probability**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: MS | General Education: FSAR, FSMA

Prerequisite: MATH110, MATH112, MATH113, or MATH115; or permission of CMNS-Mathematics department; or must have math eligibility of STAT100 or higher and math eligibility is based on the Math Placement Exam or the successful completion of Math 003 with appropriate eligibility. Restriction: Must not have completed MATH111; or must not have completed any MATH or STAT course with a prerequisite of MATH141. Cross-listed with: DATA100. Credit only granted for: DATA100, STAT100, or MATH107.

Simplest tests of statistical hypotheses; applications to before-and-after and matched pair studies. Events, probability, combinations, independence. Binomial probabilities, confidence limits. Random variables, expected values, median, variance. Tests based on ranks. Law of large numbers, normal approximation. Estimates of mean and variance.

0111	Matthew Griffin MWF 10:00am - 10:50am M 11:00am - 12:15pm	Seats (Total: 29) ESJ 0202 PHY 4206	 Discussion
0112	Matthew Griffin MWF 10:00am - 10:50am M 12:30pm - 1:45pm	Seats (Total: 29) ESJ 0202 PHY 4206	 Discussion
0121	Matthew Griffin MWF 10:00am - 10:50am Tu 9:30am - 10:45am	Seats (Total: 29) ESJ 0202 PHY 4206	 Discussion
0122	Matthew Griffin MWF 10:00am - 10:50am Tu 11:00am - 12:15pm	Seats (Total: 29) ESJ 0202 PHY 4206	 Discussion
0123	Matthew Griffin MWF 10:00am - 10:50am Tu 12:30pm - 1:45pm	Seats (Total: 28) ESJ 0202 PHY 4206	 Discussion
0124	Matthew Griffin MWF 10:00am - 10:50am Tu 2:00pm - 3:15pm	Seats (Total: 29) ESJ 0202 PHY 4206	 Discussion
0131	Matthew Griffin MWF 10:00am - 10:50am W 11:00am - 12:15pm	Seats (Total: 28) ESJ 0202 PHY 4206	 Discussion
0141	Matthew Griffin MWF 10:00am - 10:50am Th 12:30pm - 1:45pm	Seats (Total: 28) ESJ 0202 PHY 4206	 Discussion
0211	Matthew Griffin MWF 12:00pm - 12:50pm M 9:30am - 10:45am	Seats (Total: 28) ESJ 0202 PHY 4206	 Discussion
0212	Matthew Griffin MWF 12:00pm - 12:50pm M 2:00pm - 3:15pm	Seats (Total: 28) ESJ 0202 PHY 4206	 Discussion

0221	Matthew Griffin MWF 12:00pm - 12:50pm Tu 9:30am - 10:45am	Seats (Total: 28) ESJ 0202 PHY 4206	Discussion
0222	Matthew Griffin MWF 12:00pm - 12:50pm Tu 11:00am - 12:15pm	Seats (Total: 28) ESJ 0202 PHY 4206	Discussion
0223	Matthew Griffin MWF 12:00pm - 12:50pm Tu 12:30pm - 1:45pm	Seats (Total: 28) ESJ 0202 PHY 4206	Discussion
0224	Matthew Griffin MWF 12:00pm - 12:50pm Tu 2:00pm - 3:15pm	Seats (Total: 28) ESJ 0202 PHY 4206	Discussion
0231	Matthew Griffin MWF 12:00pm - 12:50pm W 9:30am - 10:45am	Seats (Total: 28) ESJ 0202 PHY 4206	Discussion
0241	Matthew Griffin MWF 12:00pm - 12:50pm Th 9:30am - 10:45am	Seats (Total: 28) ESJ 0202 PHY 4206	Discussion
0311	Susan Mazzullo MWF 2:00pm - 2:50pm M 11:00am - 12:15pm	Seats (Total: 29) ESJ 0202 PHY 4206	Discussion
0312	Susan Mazzullo MWF 2:00pm - 2:50pm M 12:30pm - 1:45pm	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0321	Susan Mazzullo MWF 2:00pm - 2:50pm W 11:00am - 12:15pm	Seats (Total: 29) ESJ 0202 PHY 4206	Discussion
0322	Susan Mazzullo MWF 2:00pm - 2:50pm W 12:30pm - 1:45pm	Seats (Total: 29) ESJ 0202 PHY 4206	Discussion

0331	Susan Mazzullo MWF 2:00pm - 2:50pm Th 9:30am - 10:45am	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0333	Susan Mazzullo MWF 2:00pm - 2:50pm Th 12:30pm - 1:45pm	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion

STAT386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Must have learning proposal approved by the CMNS-Mathematics Department.

Contact department for information to register for this course.

STAT400 **Applied Probability and Statistics I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH131, MATH141); or students who have taken courses with comparable content may contact the department. Cross-listed with: DATA400. Credit only granted for: DATA400, ENEE324, or STAT400.

Random variables, standard distributions, moments, law of large numbers and central limit theorem. Sampling methods, estimation of parameters, testing of hypotheses.

0111	Hamid Al-Saqban MWF 10:00am - 10:50am Tu 8:00am - 8:50am	Seats (Total: 25) PHY 1412 MTH 0201	Discussion
0112	Hamid Al-Saqban MWF 10:00am - 10:50am Tu 8:00am - 8:50am	Seats (Total: 25) PHY 1412 MTH 0106	Discussion
0121	Hamid Al-Saqban MWF 10:00am - 10:50am Tu 9:00am - 9:50am	Seats (Total: 26) PHY 1412 MTH 0201	Discussion
0122	Hamid Al-Saqban MWF 10:00am - 10:50am Tu 9:00am - 9:50am	Seats (Total: 25) PHY 1412 MTH 0106	Discussion

0123	Hamid Al-Saqban MWF 10:00am - 10:50am Tu 9:00am - 9:50am	Seats (Total: 27) PHY 1412 MTH 0402	Discussion
0131	Hamid Al-Saqban MWF 10:00am - 10:50am Tu 10:00am - 10:50am	Seats (Total: 26) PHY 1412 MTH 0201	Discussion
0132	Hamid Al-Saqban MWF 10:00am - 10:50am Tu 10:00am - 10:50am	Seats (Total: 26) PHY 1412 MTH 0106	Discussion
0141	Hamid Al-Saqban MWF 10:00am - 10:50am Tu 11:00am - 11:50am	Seats (Total: 25) PHY 1412 MTH 0201	Discussion
0142	Hamid Al-Saqban MWF 10:00am - 10:50am Tu 12:00pm - 12:50pm	Seats (Total: 25) PHY 1412 MTH 0201	Discussion
0211	Mestiyage Gunatilleka MWF 11:00am - 11:50am Th 8:00am - 8:50am	Seats (Total: 25) ESJ 0202 MTH 0201	Discussion
0212	Mestiyage Gunatilleka MWF 11:00am - 11:50am Th 8:00am - 8:50am	Seats (Total: 25) ESJ 0202 MTH 0106	Discussion
0221	Mestiyage Gunatilleka MWF 11:00am - 11:50am Th 9:00am - 9:50am	Seats (Total: 25) ESJ 0202 MTH 0201	Discussion
0222	Mestiyage Gunatilleka MWF 11:00am - 11:50am Th 9:00am - 9:50am	Seats (Total: 25) ESJ 0202 MTH 0106	Discussion
0223	Mestiyage Gunatilleka MWF 11:00am - 11:50am Th 9:00am - 9:50am	Seats (Total: 25) ESJ 0202 MTH 0402	Discussion

0231	Mestiyage Gunatilleka MWF 11:00am - 11:50am Th 10:00am - 10:50am	Seats (Total: 25) ESJ 0202 MTH 0201	Discussion
0232	Mestiyage Gunatilleka MWF 11:00am - 11:50am Th 10:00am - 10:50am	Seats (Total: 25) ESJ 0202 MTH 0106	Discussion
0241	Mestiyage Gunatilleka MWF 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 26) ESJ 0202 MTH 0201	Discussion
0242	Mestiyage Gunatilleka MWF 11:00am - 11:50am Th 12:00pm - 12:50pm	Seats (Total: 25) ESJ 0202 MTH 0201	Discussion
0311	Jonathan Fernandes TuTh 11:00am - 12:15pm F 8:00am - 8:50am	Seats (Total: 28) ARM 0135 MTH 0101	Discussion
0312	Jonathan Fernandes TuTh 11:00am - 12:15pm F 8:00am - 8:50am	Seats (Total: 28) ARM 0135 MTH 0303	Discussion
0321	Jonathan Fernandes TuTh 11:00am - 12:15pm F 9:00am - 9:50am	Seats (Total: 28) ARM 0135 MTH 0101	Discussion
0322	Jonathan Fernandes TuTh 11:00am - 12:15pm F 9:00am - 9:50am	Seats (Total: 28) ARM 0135 MTH 0303	Discussion
0323	Jonathan Fernandes TuTh 11:00am - 12:15pm F 9:00am - 9:50am	Seats (Total: 27) ARM 0135 MTH 0104	Discussion
0331	Jonathan Fernandes TuTh 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 28) ARM 0135 MTH 0101	Discussion

0332	Jonathan Fernandes TuTh 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 28) ARM 0135 MTH 0303	Discussion
0341	Jonathan Fernandes TuTh 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 28) ARM 0135 MTH 0101	Discussion
0342	Jonathan Fernandes TuTh 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 28) ARM 0135 MTH 0303	Discussion

STAT401 **Applied Probability and Statistics II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (STAT400, STAT410). Additional information: Not acceptable toward graduate degrees in MATH/STAT/AMSC.

Point estimation - unbiased and consistent estimators. Interval estimation. Minimum variance and maximum likelihood estimators. Testing of hypotheses. Regression, correlation and analysis of variance. Sampling distributions. Elements of non-parametric methods.

0111	Jonathan Fernandes MWF 11:00am - 11:50am	Seats (Total: 32) MTH B0421	
0201	Mestiyage Gunatilleka MWF 10:00am - 10:50am	Seats (Total: 32) MTH 0201	
0301	Natalia Tchetcherina MWF 1:00pm - 1:50pm	Seats (Total: 32) PHY 2214	
0401	Hatice Sahinoglu MWF 2:00pm - 2:50pm	Seats (Total: 30) MTH 0401	
0501	Timothy Pilachowski MWF 3:00pm - 3:50pm	Seats (Total: 30) MTH 0401	
0601	Jonathan Fernandes TuTh 9:30am - 10:45am	Seats (Total: 32) PHY 2214	

STAT410 **Introduction to Probability Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and 1 course with a minimum grade of C- from (MATH340, MATH241). Cross-listed with: SURV410. Credit only granted for: STAT410 or SURV410.

Probability and its properties. Random variables and distribution functions in one and several dimensions. Moments. Characteristic functions. Limit theorems.

0301	Bassam Fayad TuTh 11:00am - 12:15pm	Seats (Total: 32) PHY 1204
0401	Archana Khurana MWF 12:00pm - 12:50pm	Seats (Total: 32) MTH 0307
0501	Mestiyage Gunatilleka MWF 2:00pm - 2:50pm	Seats (Total: 32) MTH 0307
0601	Jonathan Fernandes TuTh 2:00pm - 3:15pm	Seats (Total: 32) PHY 2213

STAT420 **Theory and Methods of Statistics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (SURV410, STAT410). Cross-listed with: SURV420. Credit only granted for: STAT420 or SURV420.

Point estimation, sufficiency, completeness, Cramer-Rao inequality, maximum likelihood. Confidence intervals for parameters of normal distribution. Hypothesis testing, most powerful tests, likelihood ratio tests. Chi-square tests, analysis of variance, regression, correlation. Nonparametric methods.

0101	Takumi Saegusa TuTh 11:00am - 12:15pm	Seats (Total: 34) PHY 2211
0201	Jian Lun Xu TuTh 5:00pm - 6:15pm	Seats (Total: 34) MTH B0421

STAT426 **Introduction to Data Science and Machine Learning**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Minimum grade of C- in MATH241 or MATH340; and minimum grade of C- in MATH240, MATH461 or MATH341; and minimum grade of C- in STAT400 or STAT410; students who have taken courses with content comparable to STAT400/410 may request permission of the instructor. Credit only granted for: STAT426 or CMSC320.

An introductory course to the recent developments in the fields of data science and machine learning. Emphasis will be given to mathematical and statistical understanding of commonly used methods and processes.

0101	Vincent Lyzinski MWF 12:00pm - 12:50pm	Seats (Total: 32) PHY 2211

STAT430 **Introduction to Statistical Computing with SAS**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (STAT400, STAT410); and must have completed or be concurrently enrolled in STAT401 or STAT420; students who do not meet the STAT401 or STAT420 requirement but who have taken a statistics course may contact the math department to confirm eligibility.

Descriptive and inferential statistics. SAS software: numerical and graphical data summaries; merging, sorting and splitting data sets. Least squares, regression, graphics and informal diagnostics, interpreting results. Categorical data, lifetime data, time series. Applications to engineering, life science, business and social science.

0101	Susan Mazzullo MWF 10:00am - 10:50am	Seats (Total: 48) PHY 2106
0201	Hatice Sahinoglu MWF 11:00am - 11:50am	Seats (Total: 34) MTH 0304
0301	Timothy Pilachowski MWF 1:00pm - 1:50pm	Seats (Total: 34) PHY 2106
0401	Andrew Lauziere TuTh 3:30pm - 4:45pm	Seats (Total: 35) MTH 0201
0501	Christine Nickel TuTh 5:00pm - 6:15pm	Seats (Total: 34) PHY 2106

STAT440 **Sampling Theory**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (STAT401, STAT420). Credit only granted for: STAT440 or SURV440.

Simple random sampling. Sampling for proportions. Estimation of sample size. Sampling with varying probabilities. Sampling: stratified, systematic, cluster, double, sequential, incomplete.

0101	Natalia Tchetcherina MWF 10:00am - 10:50am	Seats (Total: 33) PHY 2211
0201	Natalia Tchetcherina MWF 11:00am - 11:50am	Seats (Total: 33) PHY 2211
0301	Takumi Saegusa TuTh 2:00pm - 3:15pm	Seats (Total: 30) MTH 0106

STAT464 **Introduction to Biostatistics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed one semester of calculus. Restriction: Junior standing or higher. Credit only granted for: BIOE372 or STAT464. Additional information: Not acceptable toward degrees in MATH/STAT.

Probabilistic models. Sampling. Some applications of probability in genetics. Experimental designs. Estimation of effects of treatments. Comparative experiments. Fisher-Irwin test. Wilcoxon tests for paired comparisons.

0101	Archana Khurana MWF 10:00am - 10:50am	Seats (Total: 32) PHY 2208
0201	Raluca Rosca MWF 11:00am - 11:50am	Seats (Total: 30) CHM 1224

STAT470 **Actuarial Mathematics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and 1 course with a minimum grade of C- from (MATH340, MATH241). Recommended: STAT400.

Major mathematical ideas involved in calculation of life insurance premiums, including compound interest and present valuation of future income streams; probability distribution and expected values derived from life tables; the interpolation of probability distributions from values estimated at one-year multiples; the 'Law of Large Numbers' describing the regular probabilistic behavior of large populations of independent individuals; and the detailed calculation of expected present values arising in insurance problems.

0101	Matthew Griffin MWF 2:00pm - 2:50pm	Seats (Total: 35) MTH B0421
0201	Susan Mazzullo MWF 12:00pm - 12:50pm	Seats (Total: 35) PHY 2106

STAT498A **Selected Topics in Statistics**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduate students will be offered occasionally under the general guidance of the MATH/STAT major committee. Students register for reading in statistics under this number.

Contact department for information to register for this course.

STAT601 **Probability Theory II**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: STAT600.

Weak convergence of measures; characteristic functions; Central Limit Theorem and local limit theorem; stable laws; Kolmogorov consistency theorem (without proof); conditional expectations and martingales; optimal stopping theorem; convergence of martingales; Brownian motion; Markov processes and families; stochastic integral and Ito formula.

Offered Spring only.

0101	Leonid Koralov TuTh 11:00am - 12:15pm	Seats (Total: 18) MTH 1311

STAT650 **Applied Stochastic Processes**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: STAT410; or students who have taken courses with comparable content may contact the department.

Basic concepts of stochastic processes. Markov processes (discrete and continuous parameters), Random walks, Poisson processes, Birth and death processes. Renewal processes and basic limit theorems. Discrete time martingales, stopping times, optional sampling theorem. Applications from theories of stochastic epidemics, survival analysis and others.

0101	Vincent Lyzinski	Seats (Total: 25)
	MWF 1:00pm - 1:50pm	PHY 2211

STAT689 **Research Interactions in Statistics**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

The students participate in a vertically integrated (undergraduate, graduate and/or postdoctoral, faculty) research group. Format varies, but includes regular meetings, readings and presentations of material. See graduate program's online syllabus or contact the graduate program director for more information.

Contact department for information to register for this course.

STAT701 **Mathematical Statistics II**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: STAT700; or students who have taken courses with comparable content may contact the department.

Testing hypotheses: parametric methods. Neyman-Pearson lemma. Uniformly most powerful tests. Unbiased tests. Locally optimal tests. Large sample theory, asymptotically best procedures. Nonparametric methods, Wilcoxon, Fisher-Yates, median tests. Linear models, analysis of variance, regression and correlation. Sequential analysis.

Offered Spring only.

0101	Joan Ren	Seats (Total: 20)
	TuTh 9:30am - 10:45am	PHY 0405

STAT730 **Time Series Analysis**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: STAT700; and must have completed a graduate course in analysis. Or permission of instructor. Recommended: STAT701 and STAT650.

The methodology of probabilistic description and statistical analysis of (primarily stationary) random sequences and processes. Correlation functions, Gaussian processes, Hilbert-space methods including Wold decomposition and spectral representation, periodogram and estimation of spectral densities, parameter estimation and model identification for ARMA processes, linear filtering, Kalman-Bucy filtering, sampling theorems for continuous-time series, multivariate time series.

0101	Benjamin Kedem	Seats (Total: 20)
	MWF 11:00am - 11:50am	MTH 1313

STAT741 **Linear Statistical Models II**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: STAT740.

Continuation of STAT 740. Multiway layouts, incomplete designs, Latin squares, complete and fractional factorial designs, crossed and nested models. Balanced random effects models, mixed models, repeated measures.General mixed model, computational algorithms, ML and REML estimates. Generalized linear models, logistic and loglinear regression.

Offered Spring only.

0101	Paul Smith	Seats (Total: 20)
	MWF 2:00pm - 2:50pm	MTH 0106

STAT750 **Multivariate Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: STAT700 or STAT420.

Multivariate normal, Wishart's and Hotelling's distributions. Tests of hypotheses, estimation. Generalized distance, discriminant analysis. Regression and correlation. Multivariate analysis of variance; distribution of test criteria. Principal components, canonical correlations and factor analysis.

0101	Eric Slud	Seats (Total: 20)
	MWF 9:00am - 9:50am	PHY 2122

STAT799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

STAT808A **Selected Topics in Probability**

Credits: 1-3 Grading Method: Regular, Audit

Advanced topics of current interest.

Contact department for information to register for this course.

STAT818A **Selected Topics in Statistics**

Credits: 1-3 Grading Method: Regular, Audit

Advanced topics of current interest.

Contact department for information to register for this course.

STAT818E **Selected Topics in Statistics; Stochastic dynamics**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

0101	Yu Gu	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	PHY 2124

STAT818M **Selected Topics in Statistics; MISSING DATA**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

0101	Partha Lahiri	Seats (Total: 18)
	TuTh 12:30pm - 1:45pm	EGR 3111

STAT898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

STAT899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

SURV Survey Methodology Spring 2022

SURV400 **Fundamentals of Survey and Data Science**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: STAT100; or permission of BSOS-Joint Program in Survey Methodology department. Restriction: Course open to SURV certificate students, SURV Advanced Special Students, and SURV undergraduate minors. Graduate students from other departments may enroll with permission from the department. Credit only granted for: SURV699M or SURV400. Formerly: SURV699M.

The course introduces the student to a set of principles of survey and data science that are the basis of standard practices in these fields. The course exposes the student to key terminology and concepts of collecting and analyzing data from surveys and other data sources to gain insights and to test hypotheses about the nature of human and social behavior and interaction. It will also present a framework that will allow the student to evaluate the influence of different error sources on the quality of data.

Contact department for information to register for this course.

SURV410 **Introduction to Probability Theory**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and 1 course with a minimum grade of C- from (MATH340, MATH241). Cross-listed with: STAT410. Credit only granted for: STAT410 or SURV410.

Probability and its properties. Random variables and distribution functions in one and several dimensions. Moments. Characteristic functions. Limit theorems.

0301	Bassam Fayad TuTh 11:00am - 12:15pm	Seats (Total: 32) PHY 1204
0501	Mestiyage Gunatilleka MWF 2:00pm - 2:50pm	Seats (Total: 32) MTH 0307
0601	Jonathan Fernandes TuTh 2:00pm - 3:15pm	Seats (Total: 32) PHY 2213

SURV420 **Theory and Methods of Statistics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (SURV410, STAT410). Cross-listed with: STAT420. Credit only granted for: STAT420 or SURV420.

Point estimation, sufficiency, completeness, Cramer-Rao inequality, maximum likelihood. Confidence intervals for parameters of normal distribution. Hypothesis testing, most powerful tests, likelihood ratio tests. Chi-square tests, analysis of variance, regression, correlation. Nonparametric methods.

0101	Takumi Saegusa TuTh 11:00am - 12:15pm	Seats (Total: 34) PHY 2211
0201	Jian Lun Xu TuTh 5:00pm - 6:15pm	Seats (Total: 34) MTH B0421

SURV440 **Sampling Theory**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: STAT401 or STAT420. Credit only granted for: STAT440 or SURV440.

Simple random sampling, sampling for proportions, estimation of sample size, sampling with varying probabilities of selection, stratification, systematic selection, cluster sampling, double sampling, and sequential sampling.

It runs concurrently with the University of Michigan course.

0101	Walter Dempsey **Meets January 3, 2022 - April 20, 2022** MW 8:30am - 10:00am	Seats (Total: 15) LEF 1208

SURV616 **Statistical Modeling and Machine Learning II**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: SURV615.

Build on material presented in Statistical Methods and Machine Learning I. Topics include: categorical data analysis, logistic regression, model selection for inference and prediction, classification using K-means and neural networks, survival analysis, principal components, and factor analysis.

It runs concurrently with the University of Michigan course.

0101	James Wagner **Meets January 3, 2022 - May 6, 2022** F 12:30pm - 3:30pm	Seats (Total: 20) LEF 1208

PCA1	James Wagner	Seats (Total: 10)
	Meets January 3, 2022 - May 6, 2022	
	F 12:30pm - 3:30pm	LEF 1208
	Must be in the Applied Political Analysis (MS) program. All other graduate students must request permission. Contact oes@umd.edu.	

SURV622 **Fundamentals of Data Collection II**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of Instructor required; or fundamentals of Data Collection I.

This is the second course in a two-semester sequence that provides a broad overview of the processes that generate data for use in social science research. Students will gain an understanding of different types of data and how they are created, as well as their relative strengths and weaknesses. A key distinction is drawn between data that are designed, primarily survey data, and those that are found, such as administrative records, remnants of online transactions, and social media content. The course combines lectures, supplemented with assigned readings, and practical exercises. The second semester builds on the discussion of survey mode during the first semester, considering the role played by interviewers in telephone and in-person surveys and their effects on the data collected. Students next are introduced to the methods for extracting and re purposing found data for social science research. Methods for the classification of text, with an emphasis on automated coding methods, are introduced and selected applications considered (e.g., coding of open-ended survey responses, classification of the sentiments expressed in social media posts). Issues in using survey data and administrative records to measure change over time (longitudinal comparisons) are explored. The term concludes with an examination of methods for evaluating the quality of both designed and found data.

It runs concurrently with the University of Michigan course.

0101	Frederick Conrad, Christopher Antoun, Brian Kim	Seats (Total: 25)
	Meets January 10, 2022 - April 20, 2022	
	M 3:30pm - 6:30pm	LEF 1208

SURV625 **Applied Sampling**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Must have completed a course in statistics approved by department.

Practical aspects of sample design. Topics include: probability sampling (including simple random, systematic, stratified, clustered, multistage and two-phase sampling methods), sampling with probabilities proportional to size, area sampling, telephone sampling, ratio estimation, sampling error estimation, frame problems, nonresponse, and cost factors.

It runs concurrently with the University of Michigan course.

0101	Yan Li	Seats (Total: 15)
	Meets January 17, 2022 - May 6, 2022	
	W 10:15am - 11:45am Contact instructor or department for details.	LEF 2208

SURV630 **Questionnaire Design and Evaluation**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: SURV430 and SURV630.

The stages of questionnaire design; developmental interviewing, question writing, question evaluation, pretesting, and questionnaire ordering and formatting. Reviews of the literature on questionnaire construction, the experimental literature on question effects, and the psychological literature on information processing. Examination of the diverse challenges posed by self versus proxy reporting and special attention is paid to the relationship between mode of administration and questionnaire design.

It runs concurrently with the University of Michigan course.

0101	Ting Yan	Seats (Total: 16)
	Meets January 10, 2022 - April 20, 2022	
	Tu 1:00pm - 3:10pm Contact instructor or department for details.	LEF 1208

SURV631 **Questionnaire Design**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Permission of BSOS-Joint Program in Survey Methodology department.

This course introduces students to the stages of questionnaire development. The course reviews the scientific literature on questionnaire construction, the experimental literature on question effects, and the psychological literature on information processing. It will also discuss the diverse challenges posed by self- versus proxy-reporting and special attention is paid to the relationship between mode of administration and questionnaire design. Students will also get hands-on experience in developing their own questionnaire.

PLS1	Gina Walejko	Seats (Total: 15)
	Meets January 14, 2022 - March 4, 2022	
	F 12:00pm - 1:00pm	ONLINE
	Class time/details on ELMs	ONLINE
	Note that this course does not cover developing interview guidelines for semi- and unstructured interviews in qualitative studies. Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

SURV635 **Usability Testing for Survey Research**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

Recommended: Students should be familiar with the basics of questionnaire design. Experience with cognitive testing is a plus, but not a requirement. Restriction: Must be in a major within the BSOS-Joint Program in Survey Methodology department; or permission of BSOS-Joint Program in Survey Methodology department.

Introduces the concepts of usability and usability testing and why they are needed for survey research. The course provides a theoretical model for understanding the respondent-survey interaction and then provides practical methods for incorporating iterative user-centered design and testing into the survey development process. The course provides techniques and examples for designing, planning, conducting and analyzing usability studies on web or mobile surveys

PLS1	EMILY MCFARLANE GEISEN , Jennifer Romano	Seats (Total: 15)
	Meets March 30, 2022 - April 20, 2022	
	W 11:00am - 12:00pm	ONLINE
	Class time/details on ELMs	ONLINE
	Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

SURV636 **Sampling II**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

Prerequisite: SURV626 or equivalent. Recommended: Some experience with the R statistical computing software. Repeatable to 1 credit.

Different applications of the methods and techniques covered in the Sampling I course. This is also an applied statistics methods course concerned almost exclusively with the design of data collection rather than data analysis. The course will concentrate on sampling applications to human populations, since this poses a number of particular problems not found in sampling of other types of units. The principles of sample selection, though, can be applied to many other types of populations.

PLS1	Raphael Nishimura	Seats (Total: 15)
	Meets April 7, 2022 - April 28, 2022	
	Th 1:00pm - 2:00pm	ONLINE
	Class time/details on ELMs	ONLINE
	Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

SURV675 **Modern Workflows in Data Science**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: SURV665. Recommended: R or a good knowledge of R base and tidyverse. Restriction: Permission of BSOS-Joint Program in Survey Methodology department. Credit only granted for: SURV699Y or SURV675. Formerly: SURV699Y.

Large data, fast pace of production, and collaboration are hallmarks of the new data environment. In this context, researchers must have a good understanding of data workflows and they must ensure consistent and reproducible practices in order to collaborate and consistently produce insights. This course deals with some of these essential topics. We will discuss the main types of workflows in data and survey sciences and how tools such as GitHub can enhance collaboration and insure reproducibility. We will also discuss the use of reproducible documents such as Rmarkdown or Jupyter Notebooks before covering how to work with distributed data using Spark. We will finish the course by discussing the use of dashboards and how to develop such tools using R Shiny.

PLS1	Alexandru Cernat	Seats (Total: 15)
	Meets February 28, 2022 - April 25, 2022	
	M 3:00pm - 4:00pm	ONLINE
	Class time/details on ELMs	ONLINE

SURV699 **Special Topics in Survey Methodology; Readings in Survey Methodology**

(Perm req)

Credits: 1-4 Grading Method: Regular, Audit

Credit according to time scheduled and organization of the course. Organized as a lecture series on specialized advanced topics in survey methodology.

0101	Frauke Kreuter	Seats (Total: 10)
	Contact instructor or department for details.	
0201	Brian Kim	Seats (Total: 10)
	Contact instructor or department for details.	

0301	Partha Lahiri	Seats (Total: 10)
	Contact instructor or department for details.	

SURV701 **Analysis of Complex Sample Data**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: SURV625.

Analysis of data from complex sample designs covers: the development and handling of selection and other compensatory weights; methods for handling missing data; the effect of stratification and clustering on estimation and inference; alternative variance estimation procedures; methods for incorporating weights, stratification and clustering, and imputed values in estimation and inference procedures for complex sample survey data; and generalized design effects and variance functions. Computer software that takes account of complex sample design in estimation.

It runs concurrently with the University of Michigan course.

0101	Yan Li	Seats (Total: 15)
	Meets January 17, 2022 - May 9, 2022	
	Th 1:00pm - 3:45pm	LEF 1208

SURV721 **Total Survey Error and Data Quality II**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: SURV720. Restriction: Permission of instructor. Credit only granted for: (SURV720 and SURV721) or SURV723. Formerly: SURV723.

Second part of a review of total survey error structure of sample survey data. Reviewing current research findings on the magnitudes of different error sources. Students will continue work on an independent research project which provides empirical investigation of one or more error source. An analysis paper presenting findings of the project will be submitted at the end of the course.

It runs concurrently with the University of Michigan course.

0101	Brady West	Seats (Total: 20)
	Meets January 3, 2022 - April 20, 2022	
	Th 9:00am - 11:30am	LEF 1208

SURV742 **Inference from Complex Surveys**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: SURV440.

Inference from complex sample survey data covering the theoretical and empirical properties of various variance estimation strategies (e.g., Taylor series approximation, replicated methods, and bootstrap methods for complex sample designs). Incorporation of those methods into inference for complex sample survey data. Variance estimation procedures applied to descriptive estimators and to analysis of categorical data. Generalized variances and design effects presented. Methods of model-based inference for complex sample surveys examined, and results contrasted to the design-based type of inference used as the standard in the course. Real survey data illustrating the methods discussed. Students will learn the use of computer software that takes account of the sample design in estimation.

It runs concurrently with the University of Michigan course.

0101	Robert Fay	Seats (Total: 20)
	Meets January 10, 2022 - April 16, 2022	
	Tu 1:00pm - 2:30pm	LEF 2208
	Contact instructor or department for details.	

SURV745 **Practical Tools for Study Design and Inference**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: SURV615, SURV616, and SURV625; or permission of instructor.

A statistical methods class appropriate for second year Master's students and PhD students. The course will be a combination of hands-on applications and general review of the theory behinddifferent approaches to sampling and weighting. Topics covered include sample size calculations using estimation targets based on relative standard error, margin of error, and power requirements. Use of mathematical programming to determine sample sizes needed to achieve estimation goals for a series of subgroups and analysis variables. Resources for designing area probability samples. Methods of sample allocation for multistage samples. Steps in weighting, including computation of base weights, non response adjustments, and uses of auxiliary data. Non response adjustment alternatives, including weighting cell adjustments, formation of cells using regression trees, and propensity score adjustments. Weighting via post stratification, raking, general regression estimation, and other types of calibration.

0101	Sunghee Lee	Seats (Total: 20)
	Meets January 10, 2022 - May 10, 2022	
	Tu 9:30am - 12:00pm	LEF 1208

SURV751 **Introduction to Big Data and Machine Learning**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

Prerequisite: Familiarity with the statistical software R. Restriction: Permission of BSOS-Joint Program in Survey Methodology department. Additional information: Familiarity with model building and model selection as well as the R program is not required but could also be helpful. Students without prior knowledge in R should plan on using free online resources to make themselves familiar with the basics of this statistical programming language.

This is an introduction to the uses and methods of working with Big data. Students explore how Big Data concepts, processes and methods can be used within the context of Survey Research.

PLS1	Trent Buskirk	Seats (Total: 15)
	Meets January 31, 2022 - February 21, 2022	
	M 1:00pm - 2:00pm	ONLINE
	Class time/details on ELMs	ONLINE
	Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

SURV752 **Introduction to Data Visualization**

(Perm req)

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Basic statistics understanding and bivariate linear regression. Recommended: Experience in the use of statistical software package R. Restriction: Permission of BSOS-Joint Program in Survey Methodology department.

Data visualization is one of the most powerful tools to explore, understand and communicate patterns in quantitative information. At the same time, good data visualization is a surprisingly difficult task and demands three quite different skills: substantive knowledge, statistical skill, and artistic sense. The course is intended to introduce participants to a) key principles of analytic design and useful visualization techniques for the exploration and presentation of univariate and multivariate data. This course is highly applied in nature and emphasizes the practical aspects of data visualization in the social sciences. Students will learn how to evaluate data visualizations based on principles of analytic design, how to construct compelling visualizations using the free statistics software R, and how to explore and present their data with visual methods.

PLS1	Richard Tranmueller	Seats (Total: 15)
	Meets January 19, 2022 - February 9, 2022	
	W 12:00pm - 1:00pm	ONLINE
	Class time/details on ELMs	ONLINE
	Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

SURV772 **Survey Design Seminar**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: (SURV770 and SURV771) or SURV772. Formerly: SURV770 and SURV771.

Students present solutions to design issues presented to the seminar. Readings are selected from literatures not treated in other classes and practical consulting problems are addressed.

It runs concurrently with the University of Michigan course.

0101	Stanley Presser	Seats (Total: 10)
	Meets January 26, 2022 - May 4, 2022	
	W 3:00pm - 5:45pm	LEF 2208

SURV829 **Doctoral Research Seminar in Survey Methodology**

(Perm req)

Credits: 3-6 Grading Method: Sat-Fail

An advanced research seminar for students preparing to do research or take doctoral comprehensive examinations.

It runs concurrently with the University of Michigan course.

0101	Katharine Abraham, Trivellore Raghunathan	Seats (Total: 10)
	Meets January 3, 2022 - April 20, 2022	
	W 2:00pm - 4:30pm	ONLINE

SURV898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

SURV899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

TDPS Theatre, Dance and Performance Studies Spring 2022

TDPS201 **Introduction to Technical Production**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major within the ARHU-Dance department; or must be in a major within the ARHU-Theatre department. Credit only granted for: DANC210 and THET114 or TDPS201. Formerly: DANC210 and THET114.

Students are provided with an overview of topics related to the technical production of theatre and dance including: scenic, prop and costume construction, lighting, sound and video execution and management structures.

Students must pay a $25 lab fee.

5501	Michael Driggers	Seats (Total: 25)	
	MW 4:00pm - 4:50pm	PAC 1809	
	F 3:30pm - 5:30pm	PAC 1702	Lab

TDPS258W **Special Topics in Introductory Performing Arts; Written and Oral Storytelling in the Jewish Tradition**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Designed for performing arts students. Offers instruction at the introductory level in various aspects of performance such as Voice for the Performing Arts, Movement for the Performing Arts, Acting for the Performing Arts, Partner Dance and a myriad of specific aspects within these genres.

Crosslisted with ISRL249B and JWST219F. Credit only granted for ISRL249B, TDPS258W, or JWST219F. This course will focus on the evolution of the role of the story-telle as a mediator between fiction and truth, with some emphasis on Jewish and Israeli literature. Students will read and analyze short stories i the first part of the course, and then create a workshop in which they will present their own.

0101	Yael Inbar	Seats (Total: 15)
	TuTh 11:30am - 12:45pm	PAC 2740

TDPS358T **Special Topics in Intermediate Performing Arts; Technology for Performing Arts: Theory and Practice**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Designed for performing arts students. Offers instruction at the intermediate level in various aspects of performance such as Voice for the Performing Arts, Movement for the Performing Arts, Acting for the Performing Arts, Partner Dance and a myriad of specific aspects within these genres.

0101	Andrew Cissna	Seats (Total: 15)
	MW 12:00pm - 1:15pm	PAC 2733

TDPS362 **Alexander Technique**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET222, THET116, THET223, and TDPS201; or (DANC218 and DANC219). And permission of ARHU-School of Theatre, Dance & Performance Studies department. Credit only granted for: THET399J, THET362 or TDPS362. Formerly: THET399J and THET362.

Based on the F.M. Alexander Technique, students will learn to recognize habit patterns that interfere with how they function and express themselves so that they can make conscious choices as a performing artist.

5501	Leslie Felbain	Seats (Total: 18)
	TuTh 9:30am - 11:20am	PAC 3736

TDPS440 **Arts Leadership Seminar**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: ARHU440. Credit only granted for: TDPS4440 or ARHU440.

An advanced seminar in arts leadership exposing students to the foundations of arts leadership in not-for-profit organizations as it intersects with current trends in technology, demographics, government policy, and the economy. In case studies based on examples drawn from local arts organizations, students will learn about audience engagement as well as institutional development terminology and best practices.

0101	Leayne Dempsey	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	ONLINE

TDPS458R **Special Topics in Advanced Performing Arts; Puppetry and Object Theatre**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Designed for performing arts students. Offers instruction at an advanced level in various aspects of performance such as Voice for the Performing Arts, Movement for the Performing Arts, Acting for the Performing Arts, Partner Dance and a myriad of specific aspects within these genres.

Cross-listed with ISRL329R. Credit only granted for TDPS458R or ISRL329R. Student must pay a $25 course fee. This course will focus on the evolvement of the story-teller role as a mediator between fiction and truth, especially in the Jewish and Israeli literature. It will be divided into a theoretical part followed by a practical part. In the theoretical part we will read and analyze a short story per week. In the practical part we will identify various approaches, traditional and modern, to story-telling in which the students will practice presenting short stories.

5501	Yael Inbar TuTh 9:30am - 11:20am	Seats (Total: 15) PAC 2740

TDPS469 **Advanced Practicum in Stage Management**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

A graded course in stage management for theatre and/or dance productions. A hands-on laboratory experience.

0101	Jenn Schwartz Contact instructor or department for details.	Seats (Total: 10)

TDPS479 **Production Practicum**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

A graded course in a specified practical aspect of mounting a theatre or dance production. It is a hands-on, purely laboratory experience.

Prerequisite: TDPS201. Formerly THET479. A specified practical aspect of mounting a theatre or dance production with hands-on, laboratory experience.

1001	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
1002	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
1003	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
1004	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
1005	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
1006	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
1007	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)

2001	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
2002	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
2003	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
2004	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
2005	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
2006	Andrew Cissna Contact instructor or department for details.	Seats (Total: 25)
3001	Andrew Cissna Contact instructor or department for details.	Seats (Total: 60)

TDPS789 **Professional Development in Dance and Theatre**

Credits: 1 Grading Method: Regular, Audit

This course will introduce graduate students to the academic job market, competitive fellowships, and ALT-AC (alternative academic) careers. Topics will include the interdisciplinary job market, cover letters, cv's, teaching and research statements, the teaching/artist portfolio, the diversity statement, interfolio, letters of recommendation, writing samples, websites, interviewing, and careers beyond academia.

Cross-listing with AMST789. Credit only granted for TDPS789 or AMST789.

0101	Caitlin Marshall, Van Tran Nguyen M 4:00pm - 6:00pm	Seats (Total: 18) PAC 1815

THET Theatre Spring 2022

THET110 **Introduction to the Theatre**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HA General Education: DSHU

In the age of pop music and blockbuster films, of memes and viral videos, we often forget that theatre was one of the original forms of popular entertainment. We will focus on theatre practitioners including actors, directors, designers and backstage personnel to understand how theatre is produced. We will also consider popular entertainment in Europe and America, with a particular focus on musical theatre and Broadway to explore how theatre communicates, resonates, and remains relevant to all audiences.

0101	Jonelle Walker MWF 11:00am - 11:50am	Seats (Total: 40) ONLINE	
0102	Jonelle Walker MWF 12:00pm - 12:50pm	Seats (Total: 40) ONLINE	
0103	Lauren Farnell MWF 12:00pm - 12:50pm	Seats (Total: 35) ESJ 1309	
0104	Kioumars Mazandarani Haeri MWF 1:00pm - 1:50pm	Seats (Total: 30) ONLINE	
0105	Matre Grant MWF 1:00pm - 1:50pm	Seats (Total: 30) HBK 0105	
0106	Zerihun Sira MWF 10:00am - 10:50am	Seats (Total: 30) ARC 1103	
0108	John Monday MWF 11:00am - 11:50am	Seats (Total: 35) SQH 1119	
0109	Christen Mandracchia MWF 1:00pm - 1:50pm	Seats (Total: 30) ONLINE	

THET116 **Fundamentals of Theatrical Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

Examines theatre as an environmental art that is realized through collaboration between set, costume, and lighting designers.

Students must pay a $25 lab fee.

5501	Eric Pitney, Stephanie Parks TuTh 1:30pm - 3:20pm	Seats (Total: 20) PAC 2733	Lab

THET222 **Foundations of Acting and Performance**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

Students will become familiar with the tools and process of acting through the discipline of acting exercises, analyzing character and performing. Students will research various theatre artists that have contributed to the acting process. Through monologue and scene work students will learn listening skills, communicative, collaborative and embodiment skills and will learn how to use the self in the imaginative process and research. And, most importantly, students will learn creative process through practice.

Students must pay a $25 lab fee. THET222 is for new Theatre majors only. Non-Theatre majors must attend the first day of class for permission to add

5501	Jennifer Newsham	Seats (Total: 14)	
	TuTh 2:00pm - 3:50pm	PAC 3730	Lab

THET223 **Text and Context in Western Theatre**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

Introduction to the analysis and critique of the play script. Students will have the opportunity to read, analyze, and interpret western dramatic literature from a range of periods and styles. Texts are analyzed from a variety of theatrical analytical perspectives, with an eye towards choices theatre artists must make in the creation of a theatrical production.

0101	Kristopher Pourzal	Seats (Total: 15)
	TuTh 9:30am - 10:45am	PAC 1809

THET251 **Broadway Mashup: Remixing America Through Musical Theater**

Credits: 3

Grading Method: Regular, Pass-Fail

General Education: DSHU, DVUP, SCIS

Interrogate musical theater's political history, investigating how this uniquely American genre uses narrative, song, and dance to weave critical differences across race, ethnicity, immigration status, religion, gender, sexuality, and ability into our national fabric.

0101	Amber Daniels	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	WDS 0104

0102	Lindsey Barr TuTh 12:30pm - 1:45pm	Seats (Total: 30) WDS 0104

THET269T **Special Topics in Study Abroad II; 20th Century and Contemporary Spanish Theater**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

THET285 **The Art of Communication and Presentation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSOC

Credit only granted for: COMM107, COMM200, INAG110, JOUR130, or THET285.

An introduction to the fundamental practice and theory of public speaking and oral communication using theatrical techniques of both performance and the craft of storytelling.

0101	Fatima Quander TuTh 9:30am - 11:20am	Seats (Total: 25) PAC 3732
0103	Melissa Sturges TuTh 12:00pm - 1:50pm	Seats (Total: 25) PAC 3732

THET294 **Black Theatre and Performance II**

Credits: 3 Grading Method: Regular, Pass-Fail CORE: HA, D General Education: DSHU, DVUP

Restriction: Sophomore standing or higher.

Thematic and historical survey of African-American drama from the 1960s to the present. Emphasis on sociopolitical context, thematic thrust, issues, styles, the aesthetic reflected in the work, impact on African-American and general theatre audiences.

0101	Jordan Ealey TuTh 12:30pm - 1:45pm	Seats (Total: 20) PAC 1809

THET299L **Independent Study; Analyzing Performances**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers; scenic, lighting, or costume designs; or a stage production.

Contact department for information to register for this course.

THET299Z **Independent Study; Issues of Realism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers; scenic, lighting, or costume designs; or a stage production.

Contact department for information to register for this course.

THET310 **Voice for the Actor I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET116, THET222, THET223, and TDPS201; and must Interview; and permission of ARHU-School of Theatre, Dance & Performance Studies department. Restriction: Sophomore standing or higher.

Freeing the natural voice. In-depth experience of connection of actor's voice to thought, impulse and emotion. Tools for releasing tension, increasing resonance and range, and refining articulation will be explored.

Students will meet virtually on select meeting times throughout the semester. Contact the instructor for details. Students must pay a $25 lab fee.

5501	Lisa Nathans	Seats (Total: 14)	
	MW 10:00am - 11:50am	PAC 3736	Lab

THET324 **Character Development**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in THET310 and THET362; or permission of Instructor. And must audition; and permission of ARHU-School of Theatre, Dance & Performance Studies department. Restriction: Junior standing or higher.

European-based physical approach to acting. Primary focus on character development, may include creating original characters and learning how to bring to life an already scripted character. Techniques to explore the soul and psychology of characters and their physical qualities, voice, rhythm and movement.

Students must pay a $25 lab fee.

5501	Leslie Felbain	Seats (Total: 14)	
	TuTh 1:30pm - 3:20pm	PAC 3736	Lab

THET325 **Actor's Process I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in THET310; or permission of Instructor. And must audition; and permission of ARHU-School of Theatre, Dance & Performance Studies department.

Focus on use of self in creating character. Tools employed include decision-making and use of imagery, personalization, objectives, adjectives, and verbs.

Students must pay a $25 lab fee.

5501	Fatima Quander	Seats (Total: 12)
	MW 10:00am - 11:50am	PAC 3730

THET340 **Playwriting I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET222, THET223, THET116, and TDPS201. Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department. Credit only granted for: THET340 or THET399P. Formerly: THET399P.

Will introduce students to the art of playwriting through exploratory writing exercises, the reading of successful plays, the development of new short scripts, how to make theatrical choices, and how to use the six elements of storytelling.

5501	Jennifer Newsham	Seats (Total: 12)	
	MW 10:00am - 11:50am	PAC 1815	Lab

THET363 **The Business of the Business**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET116, THET222, THET223, and TDPS201; and permission of ARHU-School of Theatre, Dance & Performance Studies department. Credit only granted for: THET399B or THET499E or THET363. Formerly: THET399B, THET499E.

An in depth study of the business of working in the theatre. Explores early career opportunities and entry-level positions in the entertainment industry. Analyzes publicity, management, union, casting, and agency practices; how they apply to you and your career in the non-profit and commercial theatre.

Cross-listed with DANC489B. Credit only granted for THET363 or DANC489B.

0101	Carlo Villanueva	Seats (Total: 20)	
	MW 12:00pm - 1:15pm	PAC 1815	

THET369X **Special Topics in Study Abroad III; Fourth-Year French II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

THET377 **Lighting Design I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET222, THET223, and THET116. And THET114; or TDPS201; or permission of ARHU-School of Theatre, Dance & Performance Studies department.

A study of the theories of electrification, instruments, design, color, and control for the stage. Practical work on productions.

Students must pay a $25 lab fee.

5501	Heather Reynolds, Christina Smith	Seats (Total: 10)	
	TuTh 9:30am - 11:20am	PAC 3731	Lab

THET380 **Sound Design**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET116. And THET114; or TDPS201; or permission of ARHU-School of Theatre, Dance & Performance Studies department. Restriction: Sophomore standing or higher.

Theatre Sound Design is a first course in designing sound for stage productions.

Students must pay a $25 lab fee.

5501	Samuel Crawford	Seats (Total: 10)	
	MW 3:00pm - 4:15pm	PAC 2727	Lab

THET383 **Costume Design I**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: TDPS201 or THET114; and (THET116, THET222, and THET223). Or permission of ARHU-School of Theatre, Dance & Performance Studies department.

Basic principles of theatre costume design and introduction to rendering skills. Emphasis on development of design conception, unity, character statement, basic clothing design and period style adaptation.

Students must pay a $25 lab fee.

5501	Helen Huang Th 1:30pm - 4:20pm	Seats (Total: 8) PAC 2755	Lab

THET384 **Stage Costume Construction II**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET284; or permission of ARHU-School of Theatre, Dance & Performance Studies department. Credit only granted for: THET384 or THET487. Formerly: THET487.

Study and practical experience in the construction of stage costumes, props and accessories. Pattern development by draping, millinery, and crafts.

Students must pay a $25 lab fee.

5501	Tessa Lew MW 9:00am - 10:50am	Seats (Total: 10) PAC 3749

THET386 **Experiential Learning**

(Perm req)

Credits: 3-6

Grading Method: Regular, Pass-Fail

Restriction: Junior standing or higher; and permission of ARHU-School of Theatre, Dance & Performance Studies department.

0401	Scot Reese Contact instructor or department for details.	Seats (Total: 3)
0801	Instructor: TBA Contact instructor or department for details.	Seats (Total: 1)

2003	Jenn Schwartz	Seats (Total: 5)
	Contact instructor or department for details.	

THET391 **Theatre History II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

The history of Western theatre from the mid seventeenth century to the early twentieth century, with emphasis on plays and playwrights, architecture and decor, acting and costuming, and significant personalities. Includes explorations of interrelationships between Western theatre and the theatre of other cultures.

0101	Franklin Hildy	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	PAC 1809

THET399 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate in term papers, scenic; lighting, or costume designs; or a stage production.

Contact department for information to register for this course.

THET399F **Independent Study; Modern British Theater**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate in term papers, scenic; lighting, or costume designs; or a stage production.

Contact department for information to register for this course.

THET399H **Independent Study; London Stage**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate in term papers, scenic; lighting, or costume designs; or a stage production.

Contact department for information to register for this course.

THET399L **Independent Study; Contemporary British Drama**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate in term papers, scenic; lighting, or costume designs; or a stage production.

Contact department for information to register for this course.

THET399X **Independent Study; The London Stage**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate in term papers, scenic; lighting, or costume designs; or a stage production.

Contact department for information to register for this course.

THET408G **Seminar: Theory and Performance Studies; Digital Humanities: Process and Play**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Studies in theatre theory and performance studies from classical antiquity to the present.

This course will explore the many aspects of digital humanities research and scholarship. The first half of the class begins with a workshop-based approach; where we will gather skills for working with digital tools. Then students are to work collaboratively using the skills harnessed to create performances, short films, and other creative bodies of work as their final project for the course.

0101	Van Tran Nguyen	Seats (Total: 18)
	MW 2:00pm - 3:15pm	PAC 1809

THET411 **Voice for the Actor II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET324 or THET325; and must audition; and permission of ARHU-School of Theatre, Dance & Performance Studies department. Restriction: Junior standing or higher. Credit only granted for: THET311, THET411, or THET499L. Formerly: THET311.

Learn the International Phonetic Alphabet (IPA) and apply to exploration of sound and language. Designed to increase voice and speech awareness, and create a base knowledge from which to approach any accent or dialect.

Students will meet virtually on select meeting times throughout the semester. Contact the instructor for details. Students must pay a $25 lab fee.

5501	Lisa Nathans	Seats (Total: 12)	
	MW 12:00pm - 1:50pm	PAC 3736	Lab

THET425 **Actor's Process II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET325; and must audition; and permission of ARHU-School of Theatre, Dance & Performance Studies department.

A deeper exploration of the work begun in THET325. A continuation of creating a personal process through which the actor can confidently approach any genre of play. Special focus on status and subtext and the world of the playwright.

Students must pay a $25 lab fee.

5501	Fatima Quander	Seats (Total: 14)	
	MW 2:00pm - 3:50pm	PAC 3736	Lab

THET428D **Special Topics in Advanced Theatre and Performance; Advanced Media Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

This course is offered as part of the School of Theatre, Dance, and Performance Studies' Artist in Residence program. Topics covered may include: Intercultural Theatre; Performance Art; Puppetry; Solo Performance; or Theatrical Design.

Students must pay a $25 lab fee.

5501	Jared Mezzocchi	Seats (Total: 10)	
	TuTh 9:30am - 11:20am	PAC 2727	

THET428F **Special Topics in Advanced Theatre and Performance; Theater Graphics III: Computer Assisted Design**

Credits: 3 Grading Method: Regular, Pass-Fail

This course is offered as part of the School of Theatre, Dance, and Performance Studies' Artist in Residence program. Topics covered may include: Intercultural Theatre; Performance Art; Puppetry; Solo Performance; or Theatrical Design.

Students must pay a $25 lab fee.

5501	Brian Jones W 12:00pm - 2:50pm	Seats (Total: 10) PAC 2727

THET428J **Special Topics in Advanced Theatre and Performance; Performance and Sexuality in Early Modern Japan**

Credits: 3 Grading Method: Regular, Pass-Fail

This course is offered as part of the School of Theatre, Dance, and Performance Studies' Artist in Residence program. Topics covered may include: Intercultural Theatre; Performance Art; Puppetry; Solo Performance; or Theatrical Design.

Cross-listing with JAPN455. Credit only granted for JAPN455, THET428J, or JAPN498J. Explores the intersections between performance and sexuality in early modern Japan. Our main sites will be the stage, the brothels, and everyday life as we examine how people of the period performed gender and sexuality. We will draw from popular fiction, kabuki, puppet theatre, woodblock prints, guides to the pleasure quarters, and censorship edicts. Taught in English.

0101	Jyana Browne TuTh 2:00pm - 3:15pm	Seats (Total: 30) JMZ 2206

THET429 **Actor's Studio**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Participation in dramatic roles executed under faculty supervision in the department's productions. Eligible students must make commitments and plan performances with course instructor during pre-registration.

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 20)
0201	Instructor: TBA Contact instructor or department for details.	Seats (Total: 25)
0301	Instructor: TBA Contact instructor or department for details.	Seats (Total: 25)
0401	Scot Reese Contact instructor or department for details.	Seats (Total: 25)

0501	Fatima Quander Contact instructor or department for details.	Seats (Total: 25)	
0601	Instructor: TBA Contact instructor or department for details.	Seats (Total: 25)	
0701	Jennifer Newsham Contact instructor or department for details.	Seats (Total: 25)	
0801	Leslie Felbain Contact instructor or department for details.	Seats (Total: 25)	
0901	Instructor: TBA Contact instructor or department for details.	Seats (Total: 25)	
1301	Brian MacDevitt Contact instructor or department for details.	Seats (Total: 25)	
1501	Lisa Nathans Contact instructor or department for details.	Seats (Total: 20)	
1601	Instructor: TBA Contact instructor or department for details.	Seats (Total: 20)	
2001	Instructor: TBA Contact instructor or department for details.	Seats (Total: 12)	
2007	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)	

THET452 **Musical Theatre Workshop II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Must audition. Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

Development of the ability to move, act and express through the media of lyric and music from the integrated musicals of the 1960s through the development of concert and rock/pop musicals.

Studnets must pay a $25 lab fee.

5501	Scot Reese Th 1:30pm - 4:20pm	Seats (Total: 14) PAC 2740	Lab

THET465 **History of Fashion for the Theatre**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET116; or permission of instructor. Restriction: Sophomore standing or higher.

A survey of Western clothing from the Ancient Worlds through 20th Century. A discussion of the cultural contexts of various trends in fashion through an examination of art, industry and textiles.

Students must pay a $25 lab fee.

5501	Misha Kachman	Seats (Total: 9)
	TuTh 5:00pm - 6:15pm	PAC 2733

THET474 **Advanced Stage Management**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET114 or TDPS201; and (THET116, THET222, THET223, and THET274); and permission of ARHU-School of Theatre, Dance & Performance Studies department. Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department; and sophomore standing or higher.

Intensive practical study of the techniques and procedures for stage management.

Students must pay a $25 lab fee.

5501	Jenn Schwartz	Seats (Total: 12)
	TuTh 11:00am - 12:15pm	PAC 1924

THET477 **Design Studio in Lighting**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET377; and permission of ARHU-School of Theatre, Dance & Performance Studies department. Jointly offered with THET659. Credit only granted for: THET477 or THET659.

Designed for students who have successfully completed THET377 and wish to further develop their lighting design skills. Emphasis is on theoretical design of productions and realized light lab projects. Particular design projects will vary.

For first year lighting design students and other MFA students. Students must pay a $25 lab fee.

5501	Amith Chandrashaker	Seats (Total: 2)	
	M 11:00am - 1:50pm	PAC 2727	Lab

THET488A **Special Topics in Theatre History Before 1800; Theatre Architecture from Minoans to the Baroque**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics in the history of world theatre and performance from the Greeks through 1800.

0101	Franklin Hildy	Seats (Total: 15)
	MW 12:00pm - 1:15pm	PAC 1809

THET497 **Non-Traditional Theatre**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D

Seminar exploring American and European experimental performance since 1960. Topics include experimental theatre, performance art, pornography and performance, gender and performance, and popular culture and performance. Topics are treated historically and theoretically. Student-produced performance projects are an important component of the seminar.

Contact department for information to register for this course.

THET499 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

An independent study course in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers, scenic or costume designs, or a stage production.

Contact department for information to register for this course.

THET499G **Independent Study; Realism and Theater Naturalism**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

An independent study course in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers, scenic or costume designs, or a stage production.

Contact department for information to register for this course.

THET499Q **Independent Study; Theatrical Forms and Genres**

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

An independent study course in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers, scenic or costume designs, or a stage production.

Contact department for information to register for this course.

THET499R **Independent Study; Issues of Realism**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

An independent study course in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers, scenic or costume designs, or a stage production.

Contact department for information to register for this course.

THET499Y **Independent Study; The London Stage**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

An independent study course in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers, scenic or costume designs, or a stage production.

Contact department for information to register for this course.

THET499Z **Independent Study; The London Stage**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

An independent study course in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers, scenic or costume designs, or a stage production.

Contact department for information to register for this course.

THET608G **Seminar: Theory and Performance Studies; Digital Humanities: Process and Play**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

A repeatable seminar on special topics in theory of the Theatre and Performance Studies.

This class is a process-based course designed to help integrate artistic practice with text-based scholarship. The weeks are thematically considered based on different methodologies of practices, think of the class as a survey course in practice-based methodologies. This course offers ahands-on approach to learning different skill sets such as filmmaking, editing, sound capturing, visual data analysis representation, wearables, and so much more.

0101	Van Tran Nguyen	Seats (Total: 10)
	TuTh 3:30pm - 4:45pm	PAC 1815

THET608N **Seminar: Theory and Performance Studies; Modernism's Theatres/Theatre's Modernisms**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

A repeatable seminar on special topics in theory of the Theatre and Performance Studies.

0101	James Harding	Seats (Total: 10)
	W 4:00pm - 6:30pm	PAC 1815

THET608W **Seminar: Theory and Performance Studies; Perform(ative) Writing:The Form of Fabulation**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

A repeatable seminar on special topics in theory of the Theatre and Performance Studies.

Introduction to the fundamental skill sets of writing about performance and cutting edge theories about the reparative, anti-racist, and social justice work of performative writing.

0101	Caitlin Marshall	Seats (Total: 12)
	TuTh 2:00pm - 3:15pm	PAC 1815

THET639 **Advanced Design Studio in Scenery**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

A repeatable course that allows students to progress in their design training through a series of carefully and individually structured assignments and projects.

Students must pay a $25 lab fee.

5501	Daniel Conway	Seats (Total: 10)
	M 9:00am - 11:50am	PAC 2733

THET649 **Advanced Design Studio in Costume**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

A series of carefully and individually structured assignments and projects that allows students to progress in their design training.

For first year costume design students and other MFA students. Students must pay a $25 lab fee.

5501	Helen Huang Tu 1:30pm - 4:20pm	Seats (Total: 10) PAC 2755	 Lab
	Students must pay a $25 lab fee.		

THET659 **Advanced Design Studio in Lighting**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

A repeatable course that allows students to progress in their design training through a series of carefully and individually structured assignments and projects.

For first year lighting design students and other MFA students. Students must pay a $25 lab fee.

5501	Amith Chandrashaker M 11:00am - 1:50pm	Seats (Total: 10) PAC 2727	 Lab
5502	Amith Chandrashaker M 3:00pm - 5:50pm	Seats (Total: 10) PAC 3731	 Lab
	Students must pay a $25 lab fee. Section is for 2nd and 3rd year students.		

THET669 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Contact department for information to register for this course.

THET669A **Independent Study; History of Fashion for the Theatre**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Students must pay a $25 lab fee.

5501	Misha Kachman TuTh 5:00pm - 6:15pm	Seats (Total: 9) PAC 2733

THET669J **Independent Study; Performance and Sexuality in Early Modern Japan**

Credits: 3 Grading Method: Regular

0101	Jyana Browne	Seats (Total: 1)	
	TuTh 2:00pm - 3:15pm	JMZ 2123	

THET669L **Independent Study; Theater Graphics III: Computer Assisted Design**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Students must pay a $25 lab fee.

5501	Brian Jones	Seats (Total: 10)	
	W 12:00pm - 2:50pm	PAC 2727	

THET678 **Theory of Visual Design For the Performing Arts**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

A historical and theoretical study of design practices in the performing arts.

Students must pay a $25 lab fee.

5501	Misha Kachman, Jared Mezzocchi	Seats (Total: 6)	
	F 9:00am - 11:50am	PAC 2733	Lab

THET688A **Special Problems in Drama; Theatre Architecture from Minoans to the Baroque**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

The preparation of adaptations and other projects in dramaturgy.

0101	Franklin Hildy	Seats (Total: 5)	
	MW 12:00pm - 1:15pm	PAC 1809	

THET788 **Master's Tutorial**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Collaboration with a faculty member on joint creative and artistic projects.

Contact department for information to register for this course.

THET789 **Master's Practicum**

Credits: 1-6 Grading Method: Regular, Audit

Participation in creative and artistic activities with professional level theatrical organizations.

Contact department for information to register for this course.

THET799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

THET888 **Doctoral Practicum in Theatre**

(Perm req)

Credits: 1-6 Grading Method: Regular

Critical analysis of a phase of a professional field of theatre. Analysis of professional activity through personal observation. Evaluation of the purpose, process, effectiveness, and efficiency of professional activity. Recommendations for training and further research.

Contact department for information to register for this course.

THET889 **Doctoral Tutorial in Theatre**

(Perm req)

Credits: 1-6 Grading Method: Regular

Individual research in theatre.

Contact department for information to register for this course.

THET898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-6 Grading Method: Regular

Contact department for information to register for this course.

THET899 **Doctoral Dissertation Research**

(Perm req)

Credits: 1-10 Grading Method: Sat-Fail

Contact department for information to register for this course.

TLPL Teaching and Learning, Policy and Leadership Spring 2022

TLPL101 **Inquiry Approach to Teaching STEM (Step 1)**

Credits: 1

Grading Method: Regular, Pass-Fail

Additional information: Students must allow for a three-hour window between 7:45 AM and 3:15 PM in their schedule for field experiences in a local school 3-4 times during the semester. A background check is required and will be facilitated by the Terrapin Teacher program coordinator.

Explore STEM teaching and learning and classroom complexity, and develop teaching skills through discussion-based, collaborative class sessions, and experiences in local schools. To explore/understand the fundamentals of inquiry teaching, students will observe, plan and teach student-centered lessons.

0101	Milen Matthews M 3:00pm - 4:20pm	Seats (Total: 24) PHY 1120
0301	Steven Karig Th 12:30pm - 1:50pm	Seats (Total: 24) PHY 1120
0401	Tranae Johnson Th 3:30pm - 4:50pm Class time/details on ELMs	Seats (Total: 24) PHY 1108 ONLINE
0501	Kayla White Th 3:30pm - 4:50pm	Seats (Total: 24) PHY 1120

TLPL102 **Inquiry Teaching of STEM in Middle School**

Credits: 2

Grading Method: Regular, Pass-Fail

General Education: DSSP

Prerequisite: Must have completed TLPL101. Additional information: Attendance at each class session will be vital to student success in the course. To complete the observations and lessons, students must allow a three hour block of time during the local middle school operational hours from 7:45 am to 3:15 pm. A background check is required.

Second course in the Terrapin Teachers teacher preparation sequence. Students gain field experience and continue exploring teaching as a career by conducting teacher observations, and planning and implementing lessons in local, high-need middle school classrooms. Students work closely with UM master teachers to build upon the inquiry-based teaching practices developed in TLPL 101. Students work with mathematics and science curricula while attending to state and district standards, in order to develop and enact lessons that are responsive to students' reasoning in math and science.

0101	Sarah Henson-Darko W 4:00pm - 5:50pm Class time/details on ELMs	Seats (Total: 24) PHY 1108 ONLINE

0201	Anita Sanyal Th 4:00pm - 5:50pm Class time/details on ELMs	Seats (Total: 24) PHY 1201 ONLINE	

TLPL202 **Good Stories: Teaching Narratives for Peace and Justice**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU, SCIS

Credit only granted for: EDCI246 or TLPL202. Formerly: EDCI246.

Through the study and use of oral storytelling and digital technologies explore qualities and characteristics of what makes a good story and how stories can be used to advance peace and justice on both individual and social levels.

0101	Margaret Peterson M 11:00am - 12:15pm Class time/details on ELMs W 11:00am - 12:15pm	Seats (Total: 60) ESJ 1215 ONLINE ESJ 1215	 Lab

TLPL250 **Historical and Philosophical Perspectives on Education**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU

Credit only granted for: EDPS210 or TLPL250. Formerly: EDPS210.

An examination of illustrative historical and philosophical examples of the interplay of ideas and events in the shaping of educational aims and practices from ancient cultures to modern technological societies.

0101	Kavitha Kasargod-Staub MW 10:00am - 11:15am	Seats (Total: 30) HBK 0302H
0201	Lisa Eaker TuTh 9:30am - 10:45am	Seats (Total: 30) TWS 1320
0301	Marissa Sariol-Clough TuTh 12:30pm - 1:45pm	Seats (Total: 30) EDU 2119
0401	Genevieve D'Cruz MW 11:00am - 12:15pm	Seats (Total: 30) ARC 1105

0501	Nandi Carson TuTh 2:30pm - 3:45pm	Seats (Total: 30) JMZ 0125	

TLPL251 **Community, Learners, and Classroom Climate**

Credits: 3 Grading Method: Regular, Pass-Fail

Credit only granted for: EDCI280 or TLPL251. Formerly: EDCI280.

An exploration of teaching in public schools, grades 1-12: student diversity, societal changes, and the expectations of teachers and public schools. Three hour per week field component.

0101	Lisa Bote Tu 4:00pm - 5:50pm Tu 8:00am - 12:00pm	Seats (Total: 8) TWS 1320 Location: TBA	Lab
0102	Lisa Bote Tu 4:00pm - 5:50pm W 8:00am - 12:00pm	Seats (Total: 5) TWS 1320 Location: TBA	Lab
0103	Lisa Bote Tu 4:00pm - 5:50pm Th 8:00am - 12:00pm	Seats (Total: 8) TWS 1320 Location: TBA	Lab
0104	Lisa Bote Tu 4:00pm - 5:50pm Th 11:30am - 3:30pm	Seats (Total: 6) TWS 1320 Location: TBA	Lab

TLPL252 **Students, Schooling, and Communities**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Corequisite: TLPL251. Credit only granted for: EDCI297 or TLPL252. Formerly: EDCI297.

Facilitates pre-service teachers' initial look at their personal backgrounds and the ways in which they view the world. Exploration of schools, students and their connections to communities. Draws on preservice teachers' concurrent field experiences.

0101	Crystal Charity MW 10:00am - 11:15am Class time/details on ELMs	Seats (Total: 25) EDU 3233 ONLINE

TLPL288E **Special Problems in Education; Developmental Heuristics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership. Available only to freshmen and sophomore students who have definite plans for individual study of approved problems relative to their preparation for teaching.

0101	Sharon Vanwright	Seats (Total: 150)
	Contact instructor or department for details.	

TLPL288R **Critical Race Counter-storytelling**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP, DVCC, SCIS

Repeatable to 3 credits. Additional information: This is a storytelling writing/composing workshop. Students will engage regularly in small writing groups.

This is a storytelling course where students explore what it means to compose counternarratives through critical race lenses. How might we compose stories that challenge dominant narratives about people and communities who are often subjected to one-sided, deficit portrayals? How do we interrogate the white gaze and the white imagination as represented in popular media, literary works, and academic writing, particularly about communities of color?

0101	Rossina Liu	Seats (Total: 60)
	TuTh 2:00pm - 3:15pm	SQH 1119

TLPL298 **Special Problems in Education**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Exploration of current problems in teaching, learning, policy and leadership. Available only to students who have definite plans for study of approved problems.

Contact department for information to register for this course.

TLPL300 **Digital Learning Tools and Communities**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Minimum cumulative GPA of 2.75; and must be in one of the following programs (Elementary Education; Secondary Educ: Social Studies; Secondary Educ: Art; Secondary Educ: Mathematics; Secondary Educ: Science; Secondary Educ: English Language Arts; Secondary Educ: Foreign Languages). Credit only granted for: EDCI385 or TLPL300. Formerly: EDCI385.

An exploration of the digital tools available for P12 students and their teachers that enhance learning and help build classroom community. This hybrid course will prepare P12 teachers to incorporate instructional technology, digital learning resources, and social media in P12 classrooms.

This course start date is approximately 2 weeks before the official beginning of the Spring semester.

0101	Cachanda Orellana Class time/details on ELMs	Seats (Total: 26) ONLINE
0201	Cachanda Orellana Class time/details on ELMs	Seats (Total: 26) ONLINE
0301	Cachanda Orellana Class time/details on ELMs	Seats (Total: 26) ONLINE
0401	Cachanda Orellana Class time/details on ELMs	Seats (Total: 30) ONLINE

TLPL305A **Curriculum and Instruction Cluster**

(Perm req)

Credits: 0 Grading Method:

This is for Seniors only.

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 26)
0201	Instructor: TBA Contact instructor or department for details.	Seats (Total: 26)
0301	Instructor: TBA Contact instructor or department for details.	Seats (Total: 26)

TLPL305B **Curriculum and Instruction Cluster**

(Perm req)

Credits: 0 Grading Method:

This is for Juniors only.

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 22)
0201	Instructor: TBA Contact instructor or department for details.	Seats (Total: 22)

0301	Instructor: TBA Contact instructor or department for details.	Seats (Total: 22)

TLPL332 **Arts Integration in Elementary Classrooms**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Corequisite: TLPL362, EDCI362, TLPL361, and EDCI489. Restriction: Must be in Elementary Education program; and minimum cumulative GPA of 2.75; Or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: TLPL306 or TLPL332. Formerly: TLPL306.

An exploration of the theories and core practices associated with integrating the arts in ways that promote student learning in the core subjects.

0101	Whit Sweet Th 12:30pm - 3:15pm	Seats (Total: 0) EDU 1315
0201	Whit Sweet Th 9:00am - 11:45am	Seats (Total: 0) EDU 1315
0301	Christine Alexander M 9:00am - 11:45am	Seats (Total: 0) ASY 3203

TLPL340 **Introduction to Children's Literature and Critical Literacy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Elementary Education program; or must be a Pre-Education Major. Credit only granted for: EDCI443 or TLPL340. Formerly: EDCI443.

Analysis of literary materials for children and youth. Timeless and ageless books, and outstanding examples of contemporary publishing. Evaluation of the contributions of individual authors, illustrators and children's book awards.

0101	Jaclyn Klueger Stief TuTh 1:00pm - 2:15pm	Seats (Total: 30) JMZ 0125
0201	Margaret Peterson MW 2:30pm - 3:45pm	Seats (Total: 30) EDU 2119

TLPL342 **Promoting Skilled and Motivated Readers in Diverse Elementary Classrooms (Part 1)**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Corequisite: TLPL362, TLPL361, TLPL332, and TLPL479. Restriction: Must be in the Elementary Education program; and permission of EDUC-Teaching and Learning, Policy and Leadership. Credit only granted for: TLPL488L or TLPL342. Formerly: TLPL488L.

An investigation of the materials, curriculum, teaching and learning practices and assessment methods associated with promoting skilled and motivated readers in diverse elementary classrooms. Teacher candidates will learn to use assessments to design instruction in the core components of reading, in line with students' individual needs and the Maryland College and Career Ready Standards.

0101	Olivia Saracho Th 9:00am - 11:45am	Seats (Total: 0) EDU 3315
0201	Brooke Dalesio Tu 12:30pm - 3:15pm	Seats (Total: 0) ASY 3221
0301	Ayanna Baccus M 12:30pm - 3:15pm	Seats (Total: 0) EDU 2121

TLPL344 **Culturally Responsive Language and Literacy Instruction in Diverse Elementary Classrooms**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Corequisite: TLPL300, TLPL478, and TLPL489. Restriction: Must be in the Elementary Education program; and permission of EDUC-Teaching and Learning, Policy and Leadership. Credit only granted for: TLPL488I or TLPL 344. Formerly: TLPL488I.

Application of the asset-based practices associated with culturally responsive language and literacy programs. Teacher candidates will learn to plan, guide and assess students' integrated language and literacy practices (reading, writing, speaking and listening), with emphasis on writing instruction, in line with students' individual needs and Maryland College and Career Ready Standards.

0101	Margaret Peterson Class time/details on ELMs	Seats (Total: 0) ONLINE
0201	John O'Flahavan Class time/details on ELMs	Seats (Total: 0) ONLINE
0301	John O'Flahavan Class time/details on ELMs	Seats (Total: 0) ONLINE

TLPL360 **Foundations of Education**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS

Credit only granted for: EDPS301 or TLPL360. Formerly: EDPS301.

Social context of education and conflicts over philosophies, values, an goals that are reflected in educational institutions in our pluralistic society. Helps teachers become reflective, critical thinkers about the social and philosophical issues they face and the choices they make.

0101	Charlotte Healy MW 1:00pm - 2:15pm	Seats (Total: 30) EDU 2119
0201	Antoinette Waller MW 12:00pm - 1:15pm	Seats (Total: 30) TWS 1320
0301	Lisa Eaker TuTh 11:00am - 12:15pm	Seats (Total: 30) ARC 1105

TLPL361 **Principles and Methods of Teaching in Elementary Schools**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Corequisite: EDCI322, EDCI362, TLPL306, and EDCI489. Restriction: Must be in Elementary Education program; and minimum cumulative GPA of 2.75; Or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI397 or TLPL361. Formerly: EDCI397.

Teaching strategies, classroom interactive techniques, and procedures for planning and evaluating instruction in elementary schools. Emphasis on principles of effective instruction, classroom management, and adaptation of instruction for various student populations.

0101	Lisa Bote Tu 12:30pm - 3:15pm	Seats (Total: 0) KNI 1206
0201	Lisa Bote Tu 9:00am - 11:45am	Seats (Total: 0) KNI 1206
0301	Lisa Bote W 12:30pm - 3:15pm	Seats (Total: 0) EDU 1315

TLPL362 **Curriculum and Instruction in Elementary Education: Social Studies**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Corequisite: EDCI362, TLPL361, EDCI489, and TLPL306. Restriction: Must be in Elementary Education program; and minimum cumulative GPA of 2.75; Or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI322 or TLPL362. Formerly: EDCI322.

Curriculum, organization and methods of teaching, evaluation of materials, and utilization of environmental resources. Emphasis on multicultural education. Includes laboratory/field experiences.

0101	Elizabeth Crooks Tu 4:15pm - 7:00pm Class time/details on ELMs	Seats (Total: 0) WDS 0104 ONLINE
0201	Lisa Eaker Th 12:30pm - 3:15pm Class time/details on ELMs	Seats (Total: 0) ARC 1101 ONLINE
0301	Victoria Patch W 9:00am - 11:45am Class time/details on ELMs	Seats (Total: 0) HBK 0109 ONLINE

TLPL407 **Teaching and Learning Mathematics in the Elementary School, Part 2**

Credits: 3 Grading Method: Regular, Pass-Fail

Credit only granted for: TLPL488G or TLPL407.

Focuses on teaching and learning rational numbers (fractions and decimals) and developing algebraic thinking. Special emphasis will be placed on developing equitable teaching practices that enable culturally and linguistically diverse students to develop knowledge and skills that promote mathematical proficiency. Mathematical concepts: Content knowledge: rational numbers (fractions and decimals) and the four arithmetic operations, algebraic thinking, some aspects of geometry and measurement.

Contact department for information to register for this course.

TLPL414 **Knowing and Learning in Mathematics and Science**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSHS

Prerequisite: Must have completed or be concurrently enrolled in TLPL102. Credit only granted for: TLPL488M or TLPL414. Formerly: TLPL488M.

Special and intensive treatment of current topics and issues in mathematics and science teaching and learning, policy and leadership. The overall goal of the course is to orient future teachers to the discourses and theories that shape what we know about how students learn math and science.

0101	Anita Sanyal W 4:00pm - 6:50pm Class time/details on ELMs	Seats (Total: 24) PHY 1120 ONLINE

TLPL415 **Perspectives in Science**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of instructor. Credit only granted for: TLPL488W or TLPL415. Formerly: TLPL488W.

Overview of the history of science and philosophical perspectives on science, particularly as they apply to science teaching.

0101	Daniel Levin TuTh 5:00pm - 6:15pm	Seats (Total: 20) PHY 1120

TLPL421 **Practices in Secondary School Science Teaching**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: TLPL425. Corequisite: EDCI471 and EDCI474. Restriction: Permission of EDUC-Teaching and Learning, Policy and Leadership department; and must be in Secondary Educ: Science program. Or minimum cumulative GPA of 2.75. Credit only granted for: TLPL421 or EDCI480. Formerly: EDCI480.

Analyses of student thinking, instructional interpretations, strategies, and techniques in the teaching internship.

0101	Jennifer Mesiner W 5:15pm - 7:15pm	Seats (Total: 10) Location: TBA

TLPL424 **Interdisciplinary Teaching in the Middle Grades II**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: EDCI360 and TLPL423. Corequisite: TLPL476 and EDCI460. Restriction: Minimum cumulative GPA of 2.5; and must be in the Middle School Teacher Education Program. Credit only granted for: EDCI414 or TLPL424. Formerly: EDCI414.

For prospective middle school teachers. Planning and implementing interdisciplinary instructional practices in middle school. Draws on the context of and experiences in the student teaching placement. Use of technology and incorporation of technology into instruction.

0101	Angela Stoltz M 5:00pm - 7:00pm Class time/details on ELMs	Seats (Total: 20) SQH 1111 ONLINE

TLPL435 **Art Education Methods I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Restriction: Minimum cumulative GPA of 2.75; and permission of EDUC-Teaching and Learning, Policy and Leadership department. And must be in Secondary Educ: Art program; or must be in Secondary Educ: Art pre-major program. Credit only granted for: EDCI405 or TLPL435. Formerly: EDCI405.

Methods I provides future art teachers with a knowledge base of the theories and best practices of effective pedagogy for: teaching methods and strategies, diversity, motivational techniques, classroom management, assessment and evaluation methods, and accommodating all students including those with special needs.

0101	Margaret Walker Tu 9:00am - 12:00pm	Seats (Total: 25) EDU 1315

TLPL437 **Studio Processes and Materials: 3D**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Secondary Educ: Art program; or must be a Pre-Art Education Major. Credit only granted for: EDCI407 or EDCI437. Formerly: EDCI407.

A lecture-studio course to develop skills, material resources, and educational strategies for three-dimensional projects in school settings.

Some sessions may take place at off-site locations.

0101	Katherine Coogan MW 9:00am - 11:50am	Seats (Total: 25) EDU 1315

TLPL441 **Pedagogy of Teaching English Language Learners**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: EDCI434 or TLPL441. Formerly: EDCI434.

A survey of the historical and current approaches, methods, and techniques of teaching English to speakers of other languages, from grammar translation and audiolingual to communicative and task-based approaches will be presented. Additionally, successful classroom practices that address the needs of culturally diverse and language minority students will be analyzed. Students will have the opportunity to discuss, probe and apply theories and principles to hands-on teaching practices in real-life settings. Digital technologies that assist teaching English language learners (ELLs) will be emphasized as well.

0101	Jessica Crawford	Seats (Total: 24)
	TuTh 12:30pm - 1:45pm	EDU 3236

TLPL443 **Understanding Cross-Cultural Communication for Teaching English Language Learners**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

Credit only granted for: EDCI436 or TLPL443. Formerly: EDCI436.

Theories of intercultural communication and techniques for applying them in the teaching of English as a second language (ESL) and content classes. Research and evaluation of selected aspects of a culture as basis for creating, selecting and using culturally-responsive teaching materials and methods.

0101	Astrid Sierra Mejia	Seats (Total: 25)
	W 5:00pm - 7:45pm	EDU 1315

TLPL444 **English Grammar Pedagogy for Teachers of English Language Learners**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: EDCI437 or TLPL444. Formerly: EDCI437.

Methods of teaching English grammar to English language learners. The role of teaching grammar. Effective methods and techniques for incorporating grammar in other communication activities.

0101	Kellie Rolstad	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

TLPL452 **Bases for English Language Instruction**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Secondary Educ: English Language Arts program; and minimum cumulative GPA of 2.75; and permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI417 or TLPL452. Formerly: EDCI417.

Examines current theory, research, best practice, curricula and materials focused on the teaching of English language to native and non-native English learners. Topics include morphology, syntax, semantics, vocabulary, pragmatics, argument, discourse structure, dialects, edited academic English, English language proficiency (listening, speaking, reading, writing) assessment, and instructional planning. English Language Learner (TESOL and SIOP) and special needs (inclusion) pupil issues considered.

0101	Franklin Horstman	Seats (Total: 30)
	W 5:00pm - 7:45pm	KNI 1103

TLPL453 **Life in Two Languages: Understanding Bilingual Communities and Individuals**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, DVUP

Overview of society and individual multilingualism. Topics include diglossia, language shift, codeswitching, bilingual first language acquisition, language attrition, dual language education policy and practice.

0101	Kellie Rolstad	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

TLPL461 **Materials and Instruction for Creating Skilled and Motivated Readers, Part II**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: TLPL361 and TLPL460. Corequisite: TLPL312, EDCI342, TLPL321, and TLPL362. Restriction: Minimum cumulative GPA of 2.75; and permission of EDUC-Teaching and Learning, Policy and Leadership department; and must be in Elementary Education program. Credit only granted for: EDCI462 or TLPL461. Formerly: EDCI462.

Selecting, evaluating, and using a variety of materials to create skilled and motivated readers in the elementary grades, particularly in diverse classroom settings; Topics include word analysis, spelling, writing, reading comprehension strategies, directed reading lessons, and explicit instruction.

Contact department for information to register for this course.

TLPL462 **Reading in the Secondary School**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Restriction: Minimum cumulative GPA of 2.75; and must be in one of the following programs (Middle School Education; Secondary Educ: Science; Secondary Educ: English Language Arts; Secondary Educ: Mathematics; Secondary Educ: Foreign Languages; Secondary Educ: Social Studies; Secondary Educ: Art) ; and permission of department required for post-baccalaureate students. Credit only granted for: EDCI463 or TLPL462. Formerly: EDCI463.

Provides secondary school teachers with understanding the need for and approaches to teaching students to read and learn from content area texts.

0201	Olivia Saracho	Seats (Total: 30)
	W 2:00pm - 4:30pm	KNI 1105

TLPL476 **Equity and Pedagogy**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: TLPL475. Corequisite: TLPL424 and EDCI460. Restriction: Minimum cumulative GPA of 2.75; and must be in one of the following programs (Middle School Education; Early Childhood Education; Elementary Education; Secondary Educ: Science; Secondary Educ: English Language Arts; Secondary Educ: Mathematics; Secondary Educ: Foreign Languages; Secondary Educ: Social Studies; Physical Education; Music Education; Secondary Educ: Art; Special Education). Credit only granted for: EDCI425 or TLPL476. Formerly: EDCI425.

An exploration and application of major theoretical frameworks surrounding equity and critical pedagogy. Pedagogical decision making that leads to greater equity and improved student learning for all students. Draws on the concurrent student teaching experience.

0101	Tifanee McCaskill, Blake Turner	Seats (Total: 20)
	Tu 5:00pm - 7:00pm	TWS 1321

TLPL478A **Professional Seminar in Education; Professional Seminar in Education: Art Education**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

0101	Katherine Coogan	Seats (Total: 8)
	Tu 4:15pm - 7:00pm	JMZ 1226

TLPL478B **Professional Seminar in Education; Professional Seminar in Education: Social Studies**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

0101	Alison Jovanovic	Seats (Total: 30)
	M 5:00pm - 7:00pm Class time/details on ELMs	KNI 1103 ONLINE

TLPL478C **Professional Seminar in Education; Professional Seminar in Education: English**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

0101	Peggy Wilson	Seats (Total: 35)
	M 4:30pm - 6:30pm Class time/details on ELMs	Location: TBA ONLINE

TLPL478D **Professional Seminar in Education; Professional Seminar in Education: Mathematics**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

0101	Dana Grosser-Clarkson, Eileen Drusjack	Seats (Total: 10)
	M 4:00pm - 5:30pm Class time/details on ELMs	ONLINE ONLINE

TLPL478G **Professional Seminar in Education; Elementary Education**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

0101	Deborah Lewin	Seats (Total: 0)
	Contact instructor or department for details. Class time/details on ELMs	ONLINE

0201	Brooke Dalesio Contact instructor or department for details. Class time/details on ELMs	Seats (Total: 0) ONLINE
0301	Tracy Dunheimer Contact instructor or department for details. Class time/details on ELMs	Seats (Total: 0) ONLINE

TLPL478I **Professional Seminar in Education; Elementary Education**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

10/14/21 (2201) Suz All of the sections will share one room, but will be rotating so that only one section at a time will meet in the room.

0101	Brooke Dalesio, Deborah Lewin F 12:00pm - 2:45pm	Seats (Total: 0) SQH 1119
0201	Brooke Dalesio, Deborah Lewin F 12:00pm - 2:45pm	Seats (Total: 0) SQH 1119
0301	Brooke Dalesio, Deborah Lewin F 12:00pm - 2:45pm	Seats (Total: 0) SQH 1119

TLPL478K **Professional Seminar in Education; World Languages**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

0101	Antonio Perez Belda W 4:30pm - 6:30pm Class time/details on ELMs	Seats (Total: 10) EGR 0108 ONLINE

TLPL478L **Professional Seminar in Education; Agriculture**

Credits: 2 Grading Method: Regular, Pass-Fail

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

0101	Melissa Welsh	Seats (Total: 5)
	Contact instructor or department for details.	

TLPL479G **Field Experiences in Education; Internship**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Field experiences in approved eduation setting with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay $135 lab fee.

0101	Deborah Lewin	Seats (Total: 0)
	Contact instructor or department for details.	
0201	Brooke Dalesio	Seats (Total: 0)
	Contact instructor or department for details.	
0301	Tracy Dunheimer	Seats (Total: 0)
	Contact instructor or department for details.	

TLPL481 **Embracing Diversity in the Classroom Community**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Admission to teacher education program; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: TLPL481 or EDCI475. Formerly: EDCI475.

An exploration of the richness and complexity of student diversity that teacher candidates will encounter in K-12 classrooms. Students will engage in critical reflection around diversity and equity issues.

0101	Amber Johnson	Seats (Total: 25)
	M 4:15pm - 7:00pm	TWS 1321

TLPL488B **Special Topics in Education; Teaching Academically, Culturally and Linguistically DiverseStudents in Secondary Education**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Sara Pepkin Dataram, Amanda Cataneo Tu 5:00pm - 6:50pm	Seats (Total: 30) KEY 1117

TLPL489 **Internship in Education**

(Perm req)

Credits: 1-12 Grading Method: Regular

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Contact department for information to register for this course.

TLPL489A **Internship in Education; Internship in Education: Art**

(Perm req)

Credits: 12 Grading Method: Regular, Pass-Fail

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay a $350.00 lab fee.

0101	Katherine Coogan Contact instructor or department for details.	Seats (Total: 18)

TLPL489B **Internship in Education; Internship in Education: Social Studies/History**

(Perm req)

Credits: 12 Grading Method: Regular, Pass-Fail

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay a $350.00 lab fee.

0101	Alison Jovanovic Contact instructor or department for details.	Seats (Total: 30)

TLPL489C **Internship in Education; Internship in Education: English**

(Perm req)

Credits: 12 Grading Method: Regular, Pass-Fail

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay a $350.00 lab fee.

0101	Peggy Wilson	Seats (Total: 25)
	Contact instructor or department for details.	

TLPL489D **Internship in Education; Internship in Education: Mathematics**

(Perm req)

Credits: 12 Grading Method: Regular, Pass-Fail

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay a $350.00 lab fee.

0101	Jennifer Mesiner	Seats (Total: 15)
	Contact instructor or department for details.	

TLPL489E **Internship in Education; Internship in Education: Middle School**

(Perm req)

Credits: 12 Grading Method: Regular, Pass-Fail

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay a $350.00 lab fee.

0101	Angela Stoltz	Seats (Total: 20)
	Contact instructor or department for details.	

TLPL489F **Internship in Education; Internship in Education: Science**

(Perm req)

Credits: 12 Grading Method: Regular, Pass-Fail

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay a $350.00 lab fee.

0101	Jennifer Mesiner Contact instructor or department for details.	Seats (Total: 20)

TLPL489G **Internship in Education; Internship in Education: Elementary Education Residency**

(Perm req)

Credits: 9

Grading Method: Regular, Pass-Fail

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay a $375.00 lab fee.

0101	Deborah Lewin, Janet Oosterhous, Jenny Hird, Whit Sweet Contact instructor or department for details.	Seats (Total: 0)
0201	Brooke Dalesio Contact instructor or department for details.	Seats (Total: 0)
0301	Tracy Dunheimer Contact instructor or department for details.	Seats (Total: 0)

TLPL489K **Internship in Education; Internship in Education: Foreign Language**

Credits: 12

Grading Method: Regular, Pass-Fail

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Please add a BPO to this course

0101	Antonio Perez Belda Contact instructor or department for details.	Seats (Total: 12)

TLPL489L **Internship in Education; Agriculture**

Credits: 12

Grading Method: Regular, Pass-Fail

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay a $350 lab fee.

0101	Melissa Welsh	Seats (Total: 5)
	Contact instructor or department for details.	

TLPL498 **Special Problems in Education**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Exploration of current problems in teaching, learning, policy and leadership. Available only to students who have definite plans for study of approved problems.

Contact department for information to register for this course.

TLPL612 **Teaching and Learning Algebra in the Middle School**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Admission to M.A. or M.Ed. with concentration in Mathematics Education; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI655 or TLPL612. Formerly: EDCI655.

Designed to enhance middle school mathematics teachers' content and pedagogical knowledge in algebra.

Contact department for information to register for this course.

TLPL618 **Digital Learning Tools and Communities**

Credits: 1 Grading Method: Regular

Addresses the student learning outcomes outlined by the Interstate Teacher Assessment and Support Consortium(InTASC). When this course is successfully completed, students will be able to competently integrate technology into instruction to support student learning and develop research-based strategies for instructional and school improvement. Students are expected to demonstrate proficiency in each of the seven Maryland Teacher Technology Standards as well as the International Society for Technology Educator Standards.

Contact department for information to register for this course.

TLPL630 **Trends in Art Education Curriculum**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDCI600 or TLPL630. Formerly: EDCI600.

Recent developments in art education.

Contact department for information to register for this course.

TLPL641 **Reading, Cognition, and Instruction: Reading in the Content Areas I**

Credits: 3 Grading Method: Regular

Credit only granted for: EDCI625 or TLPL641. Formerly: EDCI625.

Provides middle and secondary education students with an understanding of the interactive nature of the reading process, the use of research-based instructional strategies, the relationship between vocabulary development and student concept development, the design of strategic reading instruction, the methods for assessing content area literacy, and the ability to plan instruction and communicate with students, parents, and allied professionals.

0101	Ying Alice Zhang Tu 5:30pm - 8:00pm	Seats (Total: 15) EDU 2119

TLPL646 **Linguistics in Education**

Credits: 3 Grading Method: Regular

Provides teachers and educational researchers with the theoretical and technical knowledge of linguistics necessary to engage effectively in their fields.

0101	Jeff MacSwan W 5:00pm - 7:45pm Class time/details on ELMs	Seats (Total: 25) EDU 3315 ONLINE

TLPL651 **Leadership in Schoolwide Reading Program**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI666 or TLPL651. Formerly: EDCI666.

Preparation of reading personnel to function as resource persons to classroom teachers, administrators and the school community.

0101	Ayanna Baccus W 5:00pm - 7:45pm	Seats (Total: 10) ONLINE

TLPL654 **Clinical Instruction in Reading**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: TLPL653; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI665 or TLPL654. Formerly: EDCI665.

Clinical procedures and materials for reading instruction.

0101	Ayanna Baccus M 5:00pm - 7:45pm	Seats (Total: 30) KEY 0100

TLPL655 **Student Assessment in the Second Language Classroom**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: EDCI631 or TLPL655. Formerly: EDCI631.

Analysis of standardized and teacher-made FL/ESL tests; emphasis on principles of FL/ESL test construction. Field testing of commercial and teacher-made materials.

Some sessions will be conducted asynchronous.

0101	Wyatt Hall M 5:00pm - 7:45pm Class time/details on ELMs	Seats (Total: 25) ASY 1213 ONLINE

TLPL657 **Teaching for Cross Cultural Communication**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: EDCI633 or TLPL657. Formerly: EDCI633.

Theories of intercultural communication and techniques for applying them in the teaching of English as a second language (ESL) and content classes. Research and evaluation of selected aspects of a culture as basis for creating, selecting and using culturally-responsive teaching materials and methods.

0101	Astrid Sierra Mejia W 5:00pm - 7:45pm	Seats (Total: 25) EDU 1315

TLPL660 **Foundations of Literacy and Biliteracy Development**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: TLPL665. Credit only granted for: EDCI636 or TLPL660. Formerly: EDCI636.

An overview of the research on literacy and biliteracy development for English learners. Specifically, the course explores the theoretical models and processes of teaching reading and writing, current literacy/biliteracy issues, assessment, and strategies for developing literacy and biliteracy skills for English learners.

0101	Shenika Hankerson	Seats (Total: 15)
	M 5:00pm - 7:45pm	EDU 2101

TLPL662 **Second Language Acquisition**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI732 or TLPL662. Formerly: EDCI732.

Major theoretical approaches to second language acquisition. For teaching English to speakers of other languages (TESOL).

0101	Wyatt Hall	Seats (Total: 15)
	Th 5:00pm - 7:45pm	EDU 2119

TLPL663 **Practice and Theory in Teaching Second Language Learners**

Credits: 3 Grading Method: Regular, Audit

Corequisite: EDCI637 or EDCI689; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI613 or TLPL663. Formerly: EDCI613.

Focuses on issues that arise while teaching second language (ESOL or foreign language) learners. Supports implementation of theory into practice and research-based best practices during teaching internship, and completion of teaching portfolio during a second field experience.

0101	Antonio Perez Belda	Seats (Total: 10)
	M 5:00pm - 7:45pm	SQH 2113

TLPL665 **Methods of Teaching ESOL**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: EDCI634 or TLPL665. Formerly: EDCI634.

This course presents a survey of the historical and current approaches, methods, and techniques of teaching English to speakers of other languages, from grammar to translation to audiolingual and communicative approaches. Additionally, successful classroom practices that address the needs of culturally diverse and language minority students will be analyzed.

0101	Sarah Moore	Seats (Total: 2)
	Meets February 7, 2022 - March 18, 2022	
	Class time/details on ELMs	ONLINE

TLPL677 **Reframing Teacher Professionalism: Achieving Teacher Leadership**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDCI682 or TLPL677. Formerly: EDCI682.

Understanding the profession of teaching, teacher leadership, and the knowledge base that undergirds the teaching profession. Multiple perspectives on teaching in the current debate on school reform and how they are aligned across the political spectrum.

Contact department for information to register for this course.

TLPL678 **Professional Seminar in Education**

Credits: 1-3 Grading Method: Regular, Audit

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

Contact department for information to register for this course.

TLPL682 **Philosophy of Education**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDPS612 or TLPL682. Formerly: EDPS612.

A study of the great educational philosophers and systems of thought affecting the development of modern education, with particular emphasis on recent scholarship on philosophical problems in education.

0101	Campbell Scribner	Seats (Total: 20)
	Th 4:15pm - 7:00pm	ASY 3217

TLPL683 **Educational Sociology**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: TLPL683 or EDPS613. Formerly: EDPS613.

This seminar examines major theoretical frameworks and perspectives of the sociology of education with an emphasis on k-12 education. The course also takes a pragmatic approach by applying theoretical knowledge to understand U.S. schooling and contemporary educational themes and debates where activists, researchers, and political actors aim to alter schools, students, or families.

0101	Claudia Galindo W 4:15pm - 7:00pm	Seats (Total: 20) EDU 2121

TLPL688D **Special Topics in Education; ELL Language Variation**

Credits: 1

Grading Method: Regular, Audit

Special treatment of current topics and issues in teaching, learning, policy and leadership.

Contact department for information to register for this course.

TLPL688W **Special Topics in Education; Foundations of Arts Intergration**

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

Special treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Carly Finkelstein Th 4:30pm - 7:15pm	Seats (Total: 20) SQH 1111

TLPL689 **Internship in Education; Teaching Internship**

(Perm req)

Credits: 1-12

Grading Method: Regular, Audit

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

0101	Antonio Perez Belda Contact instructor or department for details.	Seats (Total: 5)
0201	Loren Jones Contact instructor or department for details.	Seats (Total: 5)

TLPL691 **Research Methods**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: EDCI685 or TLPL691. Formerly: EDCI685.

The interpretation and conduct of research relevant to curriculum, teaching and learning.

0101	Wayne Slater	Seats (Total: 25)
	Th 5:00pm - 7:45pm	ASY 3221

TLPL692 **Statistical Literacy for Education Research**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: TLPL788C, EDPS788I or TLPL692. Formerly: TLPL788C.

Students will learn about descriptive (measures of central tendencies and dispersion) and inferential (bivariate and OLS regression) statistics with education applications. Throughout the course, students will learn critical basic statistical concepts, and statistics' language and how to interpret results and communicate research findings, both orally and in written form. Students will also explore various statistical techniques and read research articles to better understand statistical procedures and approaches.

0101	Andrew Brantlinger	Seats (Total: 20)
	M 4:15pm - 7:00pm	EDU 2121

TLPL697 **Embracing Diversity: Supporting Culturally and Linguistically Diverse Learners in the Secondary Classrooms**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: TLPL688G or TLPL697. Formerly: TLPL688G.

Explores language variation across a wide range of social, economic, regional and ethnic groups. It is designed to help teacher candidates increase their awareness of language differences and to enhance their effectiveness when teaching in culturally and linguistically diverse secondary classrooms.

Contact department for information to register for this course.

TLPL698 **Conducting Research on Teaching; Conducting Research on Teaching**

(Perm req)

Credits: 1-2 Grading Method: Regular

Analysis and improvement of educational practice. Research methods used in the study of classroom teaching. Design and conduct of an action research project. Open only to students admitted to approved teacher education programs.

Contact department for information to register for this course.

TLPL699 **Master's Seminar**

Credits: 3 Grading Method: Regular, Audit

Directed study for master's degree students writing seminar papers.

Contact department for information to register for this course.

TLPL703 **Research on Technology in Education**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: EDCI788Q or TLPL703. Formerly: EDCI788Q. Additional information: Priority will be given to students in the Technology Learning and Leadership specialization.

Students explore the research methodologies used by those doing research with and on learning technologies, focusing on cultural, experimental, design and learning analytic approaches. Emphasis will be on asking meaningful research questions related to technology and exploring methodological and analytical approaches for answering them. This course will also explore research methods that examine the efficacy of new technologies, research about technology, design methods.

0101	Sarah McGrew M 4:15pm - 7:00pm	Seats (Total: 20) LEF 1221

TLPL708A **Special Topics in Technology, Learning & Leadership; Seminar**

Credits: 1 Grading Method: Regular, Audit

Read, plan, conduct, and report on research projects and research topics related to Technology, Learning & Leadership. Projects may be faculty/student projects, or group or individual student projects (may or may not be related to a dissertation). Emphasis on framing researchable questions and designing/analyzing research studies. Faculty and peer feedback and interaction are crucial expectations.

0101	Sarah McGrew Tu 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 10) ARC 1123 ONLINE

TLPL711 **Foundations of Mathematics Education II: Theory and Research on Mathematics Teaching**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: TLPL710; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI752 or TLPL711. Formerly: EDC752.

Knowledge of and insights into how mathematics has been and is being taught; theories about how it might be taught. Familiarity with the methods used to do research on teaching and to improve teaching.

0101	Imani Goffney	Seats (Total: 20)
	M 10:00am - 12:45pm	LEF 1221

TLPL720 **Foundations of Science Education**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: TLPL620 or TLPL625; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI770 or TLPL720. Formerly: EDCI770.

Development of science education pre-kindergarten through college; the influences on current and future practices; and the identification and critical analysis of topics in science education.

0101	Daniel Levin	Seats (Total: 20)
	M 4:15pm - 7:00pm	EDU 3236

TLPL728 **Research Seminar in Mathematics and Science Education**

(Perm req)

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Read, plan, conduct, and report on research projects and research topics in mathematics and science education. Projects may be faculty/student projects, or group or individual student projects (may or may not be related to a dissertation). Emphasis on framing researchable questions and designing/analyzing research studies. Faculty and peer feedback and interaction are crucial expectations.

0101	Daniel Chazan	Seats (Total: 25)
	F 10:00am - 1:30pm	EDU 2121

TLPL766 **Impact Evaluation for Education and Public Policy**

Credits: 3 Grading Method: Regular

Prerequisite: Knowledge of multivariate regression and prior experience with statistical programming software (e.g., Stata). TLPL765 or permission from instructor. Credit only granted for: TLPL766, TLPL672, or EDPS621. Formerly: TLPL672.

Students will learn about and practice using a variety of quantitative research methods that allow for causal inferences and can be applied to estimate the impact of policies or programs in education and other policy sectors.

0101	David Blazar	Seats (Total: 20)
	W 1:00pm - 3:45pm	LEF 1221

TLPL772 **Teaching, Professional Development and School Change**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDCI784 or TLPL772. Formerly: EDCI784.

Examines currrent scholarship on professional development for K-12 teachers, characteristics of good professional development, and its relationship to teaching, learning, and school improvement.

0101	Donna Wiseman	Seats (Total: 20)
	Tu 4:15pm - 7:00pm	EDU 3233

TLPL788C **Special Topics in Education; Critical Policy Analysis of Urban Education**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Sophia Rodriguez	Seats (Total: 20)
	W 4:15pm - 7:00pm	JMZ 0122

TLPL788G **Special Topics in Education; Critical Race Theory**

Credits: 3 Grading Method: Regular, Audit

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Rossina Liu	Seats (Total: 20)
	Tu 4:15pm - 7:00pm	EDU 2121

TLPL788I **Special Topics in Education; Introduction to Interaction Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Janet Walkoe M 4:00pm - 7:00pm	Seats (Total: 20) TWS 1320

TLPL788J **Special Topics in Education; Policy Analysis of the Education Workforce**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Jing Liu Tu 1:00pm - 3:45pm	Seats (Total: 20) ATL 2316

TLPL788L **Special Topics in Education; Participatory Action Research**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Tara Brown W 4:15pm - 7:00pm	Seats (Total: 20) JMZ 2122

TLPL788M **Special Topics in Education; Research and Writing for Publication**

Credits: 1 Grading Method: Regular, Audit

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Jing Liu Tu 12:00pm - 12:50pm	Seats (Total: 15) ATL 1114

TLPL788Q **Special Topics in Education; Seminar in Teacher Education and Professional Development**

(Perm req)

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Doug McNamara F 12:00pm - 2:00pm	Seats (Total: 20) KEY 0117

TLPL788Z **Special Topics in Education; Contested Control**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Campbell Scribner Th 7:15pm - 10:00pm	Seats (Total: 20) EDU 1315

TLPL789 **Internship in Education**

Credits: 1-3 Grading Method: Sat-Fail

Approved professional experiences with appropriate supervision. Open only to students admitted to approved master's and doctoral specializations.

Contact department for information to register for this course.

TLPL792 **Qualitative Research II: Analysis and Interpretation of Data**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: TLPL791. Credit only granted for: TLPL792 or EDCI792. Formerly: EDCI792.

Considers methods of on-going data analysis, ways of knowing and writing about field research, issues of reflexivity, and the ethical and political decisions involved in crafting text. Students read literature on and exemplars of multiple modes of qualitative data analysis and interpretation.

0101	Tara Brown Tu 4:15pm - 7:00pm	Seats (Total: 20) JMZ 2123

TLPL795 **Foundations of Educational Research II**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Must be in Teaching and Learning, Policy and Leadership (Doctoral) program. Credit only granted for: EDPS788T or TLPL795. Formerly: EDPS788T.

Students engage in the process of conceptualizing and completing a rigorous review of a section of literature in their area of specialization.

0101	Diane Ketelhut Th 4:15pm - 7:00pm Class time/details on ELMs	Seats (Total: 24) EDU 2121 ONLINE

TLPL798 **Special Problems in Education**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Exploration of current problems in teaching, learning, policy and leadership. Available only to master's or doctoral candidates under the direction of their advisors.

Contact department for information to register for this course.

TLPL799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

TLPL888 **Apprenticeship in Education**

(Perm req)

Credits: 1-8 Grading Method: Regular, Audit

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

Contact department for information to register for this course.

TLPL889 **Internship in Education**

(Perm req)

Credits: 3-8 Grading Method: Regular, Audit

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Contact department for information to register for this course.

TLPL898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

TLPL899 **Doctoral Dissertation Research**

(Perm req)

Credits: 1-8 Grading Method: Sat-Fail

Registration required to the extent of 6-9 hours for an Ed.D. Project and 12-18 hours for a Ph.D. Dissertation.

Contact department for information to register for this course.

TLTC Teaching and Learning Transformation Center Spring 2022

TLTC310 **Leadership in Collaborative Learning Groups**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Restriction: Restricted to students selected to participate in the Guided Study Sessions through the Teaching and Learning Transformation Center. Credit only granted for: HESI318N or TLTC310. Formerly: HESI318N.

Experiential learning opportunity that applies principles of leadership, peer mentoring, and learning theory to the planning and facilitation of peer-led collaborative learning sessions. Incorporates research, reasoning, evidence, and feedback to develop a reflective practice.

0101	Danielle Pafe W 5:00pm - 6:15pm Class time/details on ELMs	Seats (Total: 20) ONLINE ONLINE
0102	Danielle Pafe Th 3:30pm - 4:45pm Class time/details on ELMs	Seats (Total: 20) ONLINE ONLINE

TLTC333 **Fundamentals of Academic Peer Mentoring**

Credits: 1 | Grading Method: Regular, Pass-Fail

How should scientific research influence the way we study and advance the academic performance of others? Learn about the scholarship of teaching and learning and develop the applied skills to support active learning as an academic peer mentor. Whether or not you ultimately pursue a career as an educator, the more effectively you can coach and support the performance of other people, and the more successful you will be. Guided online and face-to-face participation will culminate in a portfolio of your teaching activities and professional development.

Click here for more course information.

0101	Mona Thompson M 10:00am - 10:50am Contact instructor or department for details. *This section will meet in person in ESJ 0201 on these dates: February 7, March 7, April 11.*	Seats (Total: 50) ONLINE

0102	Mona Thompson M 11:00am - 11:50am Contact instructor or department for details. *This section will meet in person in ESJ 0201 on these dates: February 7, March 7, April 11.*	Seats (Total: 50) ONLINE
0104	Mona Thompson M 3:00pm - 3:50pm Contact instructor or department for details. *This section will meet in person in ESJ 0201 on these dates: February 7, March 7, April 11.*	Seats (Total: 50) ONLINE
0105	Mona Thompson Tu 12:30pm - 1:20pm Contact instructor or department for details. *This section will meet in person in ESJ 0201 on these dates: February 8, March 8, April 12.*	Seats (Total: 50) ONLINE

TLTC399 **Independent Study in Academic Peer Mentoring**

(Perm req)

Credits: 1-3 Grading Method: Regular

Earn academic credit for the time spent supporting a course in TLTC's Academic Peer Mentoring Program (AMP).

Prerequisite: Must have completed or be concurrently enrolled in TLTC333. Restriction: Permission of TLTC required - enrollment restriction. Repeatable to 6 credits. Earn academic credit for the time spent supporting a course in TLTC's Academic Peer Mentoring Program (AMP).

Contact department for information to register for this course.

TLTC499A **Independent Study in Teaching and Learning**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Earn academic credit for the time spent supporting TLTC's educational development programs and/or engaging in the scholarship of teaching and learning.

Prerequisite: Must have completed TLTC333. Restriction: Permission of TLTC department required. Contact department for information to register for this course.

0101	Mona Thompson Contact instructor or department for details.	Seats (Total: 10)

0102	Danielle Pafe	Seats (Total: 10)
	Contact instructor or department for details.	

TLTC798 **University Teaching and Learning**

(Perm req)

Credits: 1-2 Grading Method: Regular, Audit

Special topic courses directed at experienced graduate teaching assistants who are interested in university teaching and learning issues. Can be used by students for participation in the Universtiy Teaching and Learning Program.

0101	Tami Smith	Seats (Total: 20)
	Tu 2:00pm - 4:00pm Class time/details on ELMs	ESJ 1103 ONLINE
0102	Alice Donlan	Seats (Total: 10)
	Tu 2:00pm - 4:00pm Class time/details on ELMs	ESJ 0201 ONLINE

UMEI Maryland English Institute Spring 2022

UMEI003 **English as a Foreign Language: Intermediate II**

(Perm req)

Credits: 12 Grading Method: Sat-Fail

Restriction: Permission of EDUC-Dean-Maryland English Institute department.

Intensive course for the non-native speaker of English who has mastered the essential structures of English grammar. Emphasis on improving communicative skills for a wide range of linguistic situations, on rapid expansion of vocabulary, and on improving reading comprehension and basic writing skills. Special fee required for this course. This course does not carry credit towards any degree at the University and does not count in the retention plan.

0101	Instructor: TBA	Seats (Total: 10)
	MTuWThF 9:00am - 11:50am MTuWThF 1:00pm - 2:50pm	COL 3110 COL 3110

UMEI004 **English as a Foreign Language: Intermediate III**

(Perm req)

Credits: 12 Grading Method: Sat-Fail

Restriction: Permission of EDUC-Dean-Maryland English Institute department.

Intensive course for the non-native speaker of English who has a good command of the basic features of spoken and written English. Emphasis on refining speaking and listening skills, on improving reading speed and comprehension of academic texts, and on developing writing skills for academic courses. Special fee required for this course. This course does not carry credit towards any degree at the University and does not count in the retention plan.

0101	Eric Walker, Louise Godley MTuWThF 9:00am - 11:50am MTuWThF 1:00pm - 2:50pm	Seats (Total: 16) COL 3110 COL 3110
0301	Eric Walker, Louise Godley MTuWThF 9:00am - 11:50am MTuWThF 1:00pm - 2:50pm	Seats (Total: 16) SQH 1121 SQH 1121

UMEI005 **Advanced English as a Foreign Language**

Credits: 6 Grading Method: Sat-Fail, Audit

Semi-intensive course for the nearly proficient non-native speaker of English needing additional language instruction prior to undertaking full-time academic study. Speaking and listening skills; improvement of reading speed and comprehension; and development of writing skills. Special fee required for this course. This course does not carry credit towards any degree at the University and does not count in the retention plan.

0101	Marilena Draganescu MTuThF 9:00am - 10:50am *Restricted to Graduate students.*	Seats (Total: 15) JMZ 0118
0201	Charles Duquette TuThF 9:00am - 10:50am M 9:00am - 10:50am *Restricted to Undergraduate students.*	Seats (Total: 12) SQH 1111 ONLINE

UMEI006 **English Pronunciation**

Credits: 2 Grading Method: Sat-Fail, Audit

Restriction: Must have graduate standing.

Individualized class for the non-native speaker of English. Diagnosis of individual pronunciation problems. Practice in the correct pronunciation of English sounds and improvement of ability to speak English with proper stress and intonation patterns. Special fee required for this course. This course does not carry credit towards any degree at the University and does not count in the retention plan.

0101	Jonathan Malone MW 1:00pm - 2:30pm	Seats (Total: 15) HBK 0108

UMEI007 **Advanced Writing for International Students**

Credits: 3 Grading Method: Sat-Fail, Audit

Restriction: Must have graduate standing.

A writing skills course for the non-native speaker of English with a good command of spoken English. This course does not carry credit towards any degree at the University and does not count in the retention plan.

0101	Charles Duquette MW 10:00am - 11:50am	Seats (Total: 15) PKT 1221
0201	Raymond Smith TuTh 9:00am - 10:50am	Seats (Total: 15) SQH 1125
0301	Cornell Brellenthin Class time/details on ELMs	Seats (Total: 15) ONLINE
0401	Charles Duquette Class time/details on ELMs	Seats (Total: 15) ONLINE
0501	Louise Godley MW 1:00pm - 2:50pm	Seats (Total: 15) SQH 1123
0601	Annelies Galletta TuTh 12:00pm - 1:50pm	Seats (Total: 15) COL 3109
0701	Annelies Galletta TuTh 2:00pm - 3:50pm	Seats (Total: 15) COL 3109
0801	Raymond Smith MW 9:00am - 10:50am	Seats (Total: 15) SQH 1123

UNIV University Courses Spring 2022

UNIV099 **Internship Seminar**

(Perm req) Credits: 0 Grading Method: Sat-Fail

Complements students' supervised work experiences. Open to all majors; all class levels. Involves exploring career options, developing professional work skills, examining the relationship between internship and academic coursework. Course may be repeated.

Restriction: Must have earned a minimum cumulative GPA of 2.0 (undergraduates) or 3.0 (graduate students); and Permission of the Career Center; and permission of instructor.

0101	Erica Ely, Jenny Sak Contact instructor or department for details.	Seats (Total: 50)

UNIV100 **The Student in the University**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: EDCP108O or UNIV100. Formerly: EDCP108O.

Introduces students to University life. In a small classroom setting, students will explore how to successfully bridge the gap between high school and college. Study skills, career decision-making, and student development processes will be explored.

0213	TC Lloyd M 3:00pm - 4:50pm	Seats (Total: 30) KEY 0100
0506	Jessica Parker, Christie De Leon W 12:00pm - 1:50pm *Restricted to Freshmen in the College of Education.*	Seats (Total: 20) EDU 3233
0507	Brittani Berry, Jessica Chew, Christie De Leon, Jessica Parker W 2:00pm - 3:50pm *Restricted to Transfer students in the College of Education.*	Seats (Total: 20) ONLINE
0801	Thomas Steen M 3:00pm - 4:50pm *Restricted to First Semester Letters and Sciences Students.*	Seats (Total: 20) HBK 1112

UNIV106 **The Transfer Student in the University**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be a first-semester Letters and Sciences transfer student. Credit only granted for: UNIV106 or EDCP108G.

For transfer students in Letters and Sciences. This course is designed to assist students in making a successful transition to the University of Maryland (UMD) and to serve as an extended orientation to campus living and learning.

0101	JV Sapinoso Tu 2:00pm - 3:15pm	Seats (Total: 20) PLS 1115	
0102	Melissa Hyre Th 11:00am - 12:15pm	Seats (Total: 19) EDU 2101	
0103	Noah Jacobs W 3:00pm - 4:15pm	Seats (Total: 20) KNI 1206	

UNIV107 **Science Technology Engineering Mathematics Colloquium**

Credits: 1 Grading Method: Regular, Pass-Fail

Restriction: Must be a current student in Letters & Sciences.

For students interested in pursuing a STEM related major. Introduces students to the fundamentals of career and major exploration and career development within the various disciplines of STEM.

0807	Glenn Kasten-Sportes **Meets January 30, 2022 - April 18, 2022** W 3:00pm - 3:50pm M 3:00pm - 3:50pm	Seats (Total: 20) VMH 1207 PLS 1168	 Discussion
0808	Suzanne Ashour-Bailey **Meets January 30, 2022 - April 18, 2022** W 3:00pm - 3:50pm M 3:00pm - 3:50pm	Seats (Total: 20) VMH 1207 PLS 1162	 Discussion

UNIV108 **Business Exploration Series Colloquium**

Credits: 1 Grading Method: Regular, Pass-Fail

For students interested in pursuing a business career. Students learn the fundamentals of career development and what the internship/job search process entails.

Restriction: Must be a current student in Letters and Science. For students interested in pursuing a business career. Students learn the fundamentals of career development and what the internship/job search process entails.

0162	Lisa Scheeler, Gaby Hernandez M 4:00pm - 4:50pm W 3:00pm - 3:50pm	Seats (Total: 20) ATL 2324 HBK 0125	Discussion
0163	Lisa Scheeler, Gaby Hernandez M 4:00pm - 4:50pm W 4:00pm - 4:50pm	Seats (Total: 20) ATL 2324 HBK 0125	Discussion
0164	Lisa Scheeler, Gaby Hernandez M 4:00pm - 4:50pm Th 2:00pm - 2:50pm	Seats (Total: 20) ATL 2324 PLS 1168	Discussion

UNIV190 **National Scholarships for International Goals**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Freshman or Sophomore Standing.

Prepares first- and second-year students with international interests such as study abroad, language learning, and international careers to apply for nationally competitive scholarships, including how to write an effective personal statement. The course will help students focus and explore their interests, and connect these interests to current events. It will be of particular interest to students preparing for service-oriented and internationally focused careers.

0101	Leslie Brice M 4:00pm - 4:50pm	Seats (Total: 20) JMZ 1215

UNIV269 **Connecting Across Cultures**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

An examination of culture to guide study abroad students through the stages of cross cultural adjustment and to promote cultural competency by providing the motivation, knowledge and skills necessary to work with diverse individuals and teams.

Contact department for information to register for this course.

UNIV269A **Connecting Across Cultures; Cultural Realities of Spain**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

An examination of culture to guide study abroad students through the stages of cross cultural adjustment and to promote cultural competency by providing the motivation, knowledge and skills necessary to work with diverse individuals and teams.

Contact department for information to register for this course.

UNIV362 **Designing Your Life after College**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must have earned a minimum of 60 credits.

Helps students anticipate and prepare for changes in finances, social life, health, and career dynamics they are likely to experience as they transition from college to working full-time. It focuses on understanding what resources students have as they enter the workforce as critical for navigating post-graduation changes successfully. It offers an overview of financial, risk management and professional development approaches to increase students' confidence regarding post-graduation decisions; in addition, it develops their creative problem solving and reflection skills to help them align the outcomes of their decisions with their values.

0101	Ann Holmes, Dave Kenny Tu 4:30pm - 6:30pm	Seats (Total: 25) JMZ 1120
0102	Alexander Mullen, Amanda Dennis Tu 4:30pm - 6:30pm	Seats (Total: 25) HBK 0105
0103	Judi Gorski, Kenneth Kokason Tu 4:30pm - 6:30pm	Seats (Total: 25) JMZ 0122
0104	Parker Kleb, Richard Blackman Tu 4:30pm - 6:30pm	Seats (Total: 25) HBK 0109
0105	Tori Shay, Michael Stokvis Tu 4:30pm - 6:30pm	Seats (Total: 25) JMZ 3203
0106	Gerry Strumpf, Chad Nazworth Tu 4:30pm - 6:30pm	Seats (Total: 25) TWS 1107

UNIV389J **Special Topics in Undergraduate Studies; Federal Independent Study Projects**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Courses will focus on interdisciplinary topics and will be planned in cooperation with Undergraduate Studies.

0101	Naz Beyranvand, Joan Burton	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

UNIV389K **Special Topics in Undergraduate Studies; Special Topics in Experiential Learning Global Semester**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Courses will focus on interdisciplinary topics and will be planned in cooperation with Undergraduate Studies.

0101	Joan Burton, Jayakumar Arasan	Seats (Total: 38)
	Class time/details on ELMs	ONLINE
0201	Joan Burton, Jayakumar Arasan	Seats (Total: 38)
	Contact instructor or department for details.	

UNIV399 **Experiential Learning in Undergraduate Studies**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Experiential learning offered in conjunction with certain designated Office of Undergraduate Studies programs.

0101	Naz Beyranvand, Joan Burton	Seats (Total: 10)
	Class time/details on ELMs	ONLINE

URSP Urban Studies and Planning Spring 2022

URSP372 **Diversity and the City**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DVUP

Exploration of the different needs of diverse economic, racial/ethnic, and gender groups that live and work in cities, the historical background of differences, the impact of societal structures and group cultures, and how public and private policies do and can affect different groups.

0101	Nohely Alvarez	Seats (Total: 20)
	W 2:00pm - 4:30pm	WDS 1114

URSP399I **Independent Study**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Directed research and study of selected aspects of urban affairs.

Contact department for information to register for this course.

URSP600 **Research Design and Application**

(Perm req)

Credits: 3

Grading Method: Regular

Formerly: URSP602.

Techniques in urban research, policy analysis, and planning. Survey of descriptive and normative models. Objective and subjective measurements. Emphasis on assumptions of research.

0101	Louis Thomas M 7:00pm - 9:40pm	Seats (Total: 25) ARC 1105

URSP601 **Research Methods**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Recommended: An undergraduate-level statistics course; and familiarity with Microsoft Excel. Formerly: URBS601.

Use of measurement, statistics, quantitative analysis, and micro-computers in urban studies and planning.

0101	Chengri Ding W 4:00pm - 6:40pm	Seats (Total: 25) SQH 1111

URSP604 **The Planning Process**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Credit only granted for: URSP604, URBS656, or URBS604. Formerly: URBS604.

Legal framework for U.S. planning; approaches to the planning process; tools and technology; systems thinking; defining problems and issues; soliciting goals and values; developing and making good presentations; public participation; developing and evaluating alternatives and scenarios; plan evaluation; developing RFPs.

0101	Ariel Bierbaum Tu 4:00pm - 6:40pm	Seats (Total: 20) ARC 1103

URSP606 **Planning Economics**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Must not have completed URSP630. Credit only granted for: URSP606, URBS606, or URBS630. Formerly: URBS606.

Resource allocation in a market economy, the nature of market failures, and the justifications for public sector intervention. The limits and possibilities for planning in a market economy.

0101	Chengri Ding M 4:00pm - 6:40pm	Seats (Total: 19) ASY 3207

URSP631 **Transportation and Land Use**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

The interrelationship between transportation and land use. What are the impacts of various transportation modes on land use patterns, and how can land use solutions influence travel demand. The integration of transportation into master planning and site impact analysis. Using quantitative methods to understand the land use and transportation linkage.

0101	Hiroyuki Iseki W 4:00pm - 6:40pm	Seats (Total: 19) ASY 3221

URSP640 **Growth Management and Environmental Planning**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Topics associated with growth management, defined as policies and strategies by which governments attempted to control the amount, location, pace, pattern and quality of development within their jurisdictions.

0101	Royce Hanson Tu 1:00pm - 3:40pm	Seats (Total: 25) ARC 1105

URSP673 **Community Development**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Examines and identifies planning approaches and methods that can help communities - particularly low income communities - become stronger, more cohesive, and more capable of serving their interests. Examines urban poverty; urban politics; history, concepts and practice of community development; and community development approaches and methods.

0101	Bi'Anncha Andrews	Seats (Total: 25)
	Th 7:00pm - 9:40pm	ARC 1101

URSP688M **Recent Developments in Urban Studies; Intermediate Geographic Information Systems**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Examination of selected current aspects of urban affairs and planning, including, for example, in the United States or neighborhood preservation in Russia. Location of course may be off-campus.

0101	Andrew Bernish	Seats (Total: 20)
	Tu 7:00pm - 9:45pm	ARC 1123

URSP688O **Recent Developments in Urban Studies; US Housing Policy & Planning**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Examination of selected current aspects of urban affairs and planning, including, for example, in the United States or neighborhood preservation in Russia. Location of course may be off-campus.

0101	Alex Donahue, Jennifer Shelby	Seats (Total: 15)
	Th 7:00pm - 9:40pm	ARC 1125

URSP688V **Recent Developments in Urban Studies; Community Visioning with Foresight**

Credits: 3 Grading Method: Regular, Audit

Examination of selected current aspects of urban affairs and planning, including, for example, in the United States or neighborhood preservation in Russia. Location of course may be off-campus.

The accelerated pace of change and increased uncertainty about the future make it ever more difficult to plan for the future of a community. Creating a resilient community vision requires knowledge about potentialdrivers of change and a nimble process that allows planners to pivot while the future is approaching. This course will be an introduction to how planners can use the concept of foresight in community visioning. Foresight is an approach that aims at making sense of the future, understanding drivers of change that are outside of one'scontrol, and preparing for what may lead to success or failure in the future. Students will learn about foresight methodologies, including participatory trend scanning, scenario planning, and backcasting, and how to use them in a community visioning process. As part of the course, the students will create a community vision for a community of their choice, applying these methodologies.

0101	Petra Hurtado M 7:00pm - 9:40pm	Seats (Total: 25) ONLINE

URSP688Y **Recent Developments in Urban Studies; Smart Cities and Urban Data Science**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Examination of selected current aspects of urban affairs and planning, including, for example, in the United States or neighborhood preservation in Russia. Location of course may be off-campus.

Cross-listed with URSP688Y. Credit granted for URSP688Y or INST728G.

0101	Christopher Dempwolf Tu 4:00pm - 6:40pm	Seats (Total: 30) ARC 1105

URSP709 **Field Instruction**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Students will satisfy a 300-hour internship (20 hours for 15 weeks during the spring, 25 hours a week for 12 weeks during the summer). Suitable internships are approved by the Internship Coordinator or Instructor; they involve a significant amount of planning work (preferably in the student's are of interest) and provide an appropriate on-site supervisor. The Internship Coordinator will assist students in finding a suitable internship, but the ultimate responsibility rests with each student. Whether the internship is paid or not is a matter to be worked out between the student and the organization.

Prerequistes: URSP600, URSP604, URSP605 or permission of the department.

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)
1001	Gerrit Knaap Class time/details on ELMs	Seats (Total: 5) ONLINE

1201	Chengri Ding Class time/details on ELMs	Seats (Total: 5) ONLINE
1401	Marccus Hendricks Class time/details on ELMs	Seats (Total: 5) ONLINE
1501	Ariel Bierbaum Class time/details on ELMs	Seats (Total: 5) ONLINE
1601	Hiroyuki Iseki Class time/details on ELMs	Seats (Total: 5) ONLINE
1701	Instructor: TBA Class time/details on ELMs	Seats (Total: 5) ONLINE
2103	Willow Lung Amam Class time/details on ELMs	Seats (Total: 5) ONLINE
2107	Clara Irazabal Zurita Class time/details on ELMs	Seats (Total: 10) ONLINE

URSP788 **Independent Study in Urban Studies and Planning**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Directed research and study of selected aspects of urban affairs.

Contact department for information to register for this course.

URSP798 **Readings in Urban Studies and Planning**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Directed readings in selected aspects of urban affairs and planning.

Contact department for information to register for this course.

URSP799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

URSP805 **Seminar in Research Design**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: URSP804 and URSP810.

Addresses fundamental aspects of research desing for Ph.D students in urban planning and policy-related fields. Topics include principles of research design, formulating a feasible hypothesis and identifying appropriate methodology for testing hypotheses eg. qualitative methods, quantitative methods, survey research. Writing of proposals and dissertation. Publication, presentation, and funding.

0101	Instructor: TBA	Seats (Total: 15)
	Th 1:00pm - 3:40pm	WDS 1127

URSP898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Selected topics in Urban Studies and Planning. Topics will vary with the instructor.

Contact department for information to register for this course.

URSP899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

This course is a required course for the Ph.D program in Urban and Regional Planning and Design.

Contact department for information to register for this course.

USLT Latina/o Studies Spring 2022

USLT202 **US Latina/o Studies II: A Contemporary Overview 1960's to present**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB, D

Interdisciplinary course on emerging populations of Latinos in the 20th century with a focus on the multiple waves of latino immigration as a result of neocolonialism, imperialism, globalization and transnationalism. Examines the positioning of immigrant waves in the political, sociocultural and historical contexts of US Latinidades.

0101	Robert Chester	Seats (Total: 25)
	TuTh 9:30am - 10:45am	TWS 0134

USLT403 **Citizens, Refugees, and Immigrants**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: USLT403, USLT498I, AMST498N, or IMMR419D. Formerly: USLT498I.

Citizenship, Refugee and Immigrant are guiding categories that often define the Latina/o community in the United States. Employing this analytical lens, this course critically engages with notions of exclusion and inclusion, which included documentation, status, race, gender, and power. To better understand how these ideas and processes work, students are introduced to the history of Latina/o migration, US immigration policies, racial formation theory, gender construction, borderland theory, and the politics of territoriality.

Cross-listed with: AMST498N and IMMR419D. Citizenship, Refugee and Immigrant are guiding categories that often define the Latina/o community in the United States. Employing this analytical lens, this course critically engages with notions of exclusion and inclusion, which included documentation, status, race, gender, and power. To better understand how these ideas and processes work, students are introduced to the history of Latina/o migration, US immigration policies, racial formation theory, gender construction, borderland theory, and the politics of territoriality.

0101	Perla Guerrero	Seats (Total: 25)
	MW 2:00pm - 3:15pm	TWS 0134

USLT428R **US Latina/o Studies: Special Topics; Aguacatero Dreams: Central Americans in the United States**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Specific content to be announced when courses are offered.

Prerequisites: SPAN331, SPAN332, SPAN333, SPAN361, SPAN362, or SPAN363; or permission of instructor. Cross-listed with SPAN408R. Credit only granted for SPAN408R or USLT428R. This course explores the history, geopolitics, migrations , and cultural representations of Central Americans in the United States, with special emphasis on the greater Washington, D.C. metropolitan area. We will examine how Central American identities are transnationalized and translocalized and why the DMV is home to one of the largest concentrations of Central Americans, especially Salvadorans, in the U.S. We will study novels, short stories, poetry, spoken word/performances, films, music, photography, zines, social media, and other interdisciplinary re/sources and engage one-on-one with local and international artists, activists, and community orgs. Students should expect to participate in a community engagement project. Taught in Spanish and discussions in Spanglish.

0101	Ana Rodriguez	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	JMZ 1215

USLT430 **Globalization and the Diversifying U.S.**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: USLT430, USLT498N, AMST498W, or IMMR419J. Formerly: USLT498N.

While often talked about as a recent phenomenon and one focused on capital, the ebbs and flows of globalization has a long history among Latina/o communities in the United States. The impact and consequences of globalization can be seen in US foreign policy in Latin America. For instance, Operation Bootstrap in Puerto Rico and the Maquiladores on the Mexico and U.S. border. At the same time, it has shaped immigration policies and the social. political and cultural experiences of Latina/o workers in the U.S. Often blamed for "taking " jobs, this course takes a deeper look at the concrete reasons for the rise of globalism and its impact on Latina/o communities in the US.

0101	Perla Guerrero	Seats (Total: 25)
	MW 11:00am - 12:15pm	TWS 0134

USLT488B **US Latina/o Senior Seminar**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A variable topics seminar that exposes students to interdisciplinary critical readings, writings, and research in U.S. Latina/o Studies. Interdisciplinary research methodologies are broadly addressed. Students will gain skills and practice in reading critical analytic texts and will develop writing skills.

A variable topics seminar that exposed students to interdisciplinary critical readings, writings, and research in U.S. Latina/o Studies. Interdisciplinary research methodologies are broadly addressed. Students will gain skills and practice in reading critical analytic texts and will develop writing skills.

0101	Robert Chester	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	TWS 0134

VMSC Veterinary Medical Sciences Spring 2022

VMSC660 **Emerging and Re-emerging Infectious Diseases**

Credits: 2 Grading Method: Regular, Sat-Fail

The global burden of emerging and re-emerging infectious diseases is growing and prompts the need for effective control of these pathogens. The objective of this course is to provide graduate students with knowledge of pathogenesis and transmission of globally evolving pathogens. Registered students for this course are expected to know fundamentals of infectious diseases. References from the peer reviewed journals will be provided to facilitate understanding of the selected topics. Opening of this course is necessary to help graduate students to stay up-to-date with currently emerging pathogens and their evolution with changes in environment. This course is complementary to other existing microbiology courses (i.e., Viral Pathogenesis) on campus. Lectures focus on an in-depth analysis of a variety of topics in current infectious diseases. The course highlights recently published literatures to evaluate evolving trends in infectious diseases. The covered topics include subjects related with various pathogens and their adaptation strategy to enhance pathogenicity and transmissibility. The lectures will also cover the control and prevention measures of these pathogens.

0101	Sean Riley	Seats (Total: 20)
	F 10:00am - 12:50pm	Location: TBA

VMSC688A **Special Topics in Veterinary Medical Sciences; Advances in Reverse Genetics of Animal Viruses**

Credits: 1-4 Grading Method: Regular

Lectures and discussions on current topics in veterinary medicine s as animal disease surveillance, risk analysis, molecular epidemiolo or fish pathology. Targeted at veterinary medicine (DVM) students a other graduate students with a background in veterinary medical sciences.

0101	Siba Samal	Seats (Total: 10)
	Contact instructor or department for details.	

VMSC698 **One Health Seminar**

Credits: 1 Grading Method: Regular

"One Health" is an approach that recognizes that health of people is closely connected to health of animals and our shared environment. Outstanding leaders in the field will present ideas for analysis and discussion among class members. Topics will include presentation and discussion of scientific publications, current topics, and new methodologies.

0101	Mostafa Ghanem	Seats (Total: 20)
	Th 11:00am - 12:30pm	GVC 1216
	Contact instructor or department for details.	

VMSC699 **Special Problems in Veterinary Medical Sciences**

Credits: 1-4 Grading Method: Regular

Independent study of a specific problem related to veterinary medicine such as a disease outbreak, application of a new diagnostic test or a risk analysis related to animal health. Targeted at veterinary medicine (DVM) students and other graduate students with a background in veterinary medicine.

Contact department for information to register for this course.

VMSC720 **Viral Pathogenesis**

Credits: 2 Grading Method: Regular, Audit

This course will teach graduate students about mechanisms of infections by animal and human viral pathogens, including virus-cell interactions, host responses, and consequences of virus infection. Particular attention will be focused on the molecular mechanisms of the interactions between virus and host.

0101	Yanjin Zhang	Seats (Total: 20)
	F 10:00am - 11:50am	Location: TBA

VMSC758 **Journal Club in Comparative Biomedical Sciences**

Credits: 1 Grading Method: Regular, Audit

The Journal Club in Comparative Biomedical Sciences is a graduate-level student-driven course. Each student will pick a peer-reviewed journal article for individual presentation and group discussion. The articles will cover a wide variety of biomedical science topics based on student and group interests.

0101	Nathaniel Tablante	Seats (Total: 10)
	M 11:00am - 12:00pm	Location: TBA

VMSC780 **Parasites of Medical and Veterinary Importance**

Credits: 2 Grading Method: Regular

Restriction: Permission of instructor.

Provides students with the basic knowledge of parasites as well as research advancement in important parasites of humans and animals. Particular attention will be given to parasite biology, pathogenesis, and host responses to parasitic infection. A selection of parasites of medical and veterinary importance will be specifically covered with emphasis on recent research breakthroughs in the field.

Contact department for information to register for this course.

VMSC799 **Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

VMSC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

VMSC899 **Dissertation Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

WGSS Women, Gender, and Sexuality Studies Spring 2022

WGSS200 **Introduction to WGSS: Gender, Power, and Society**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	General Education: DSHS, DVUP

Credit only granted for: WMST200 or WGSS200. Formerly: WMST200.

Examines constructions of race, class, sexuality, ability, and gender relations from a social science multi-disciplinary perspective. The course interrogates the ways that systems of hierarchy and privilege are created, enforced, and intersect through the language of race, class, sexuality, and national belonging. The course will provide students with the skills to examine how systems of power manifest in areas such as poverty, division of labor, health disparities, policing, violence. In addition to examining the impact of systems of power, students will reflect on their own location within the exercise of racialized, and gendered power relations. This course encourages students to understand and critique these systems both personally and politically.

0101	Clara Montague MWF 10:00am - 10:50am	Seats (Total: 25) ONLINE	
0201	Clara Montague MWF 1:00pm - 1:50pm	Seats (Total: 25) ONLINE	
0301	Sina Lee TuTh 9:30am - 10:45am	Seats (Total: 25) TWS 1313	
0401	Sina Lee TuTh 11:00am - 12:15pm	Seats (Total: 25) ASY 3211	

WGSS211 **Women in America Since 1880**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	General Education: DSHS, DVUP

Cross-listed with: HIST211. Credit only granted for: HIST211, WMST211 or WGSS211. Formerly: WMST211.

An examination of women's changing roles in working class and middle class families, the effects of industrialization on women's economic activities and status, and women's involvement in political and social struggles, including those for women's rights, birth control, and civil rights.

0101	Robyn Muncy MW 11:00am - 11:50am W 10:00am - 10:50am	Seats (Total: 23) KEY 0106 KEY 0100	 Discussion

0102	Robyn Muncy MW 11:00am - 11:50am W 1:00pm - 1:50pm	Seats (Total: 23) KEY 0106 KEY 0100	 Discussion
0103	Robyn Muncy MW 11:00am - 11:50am W 2:00pm - 2:50pm	Seats (Total: 23) KEY 0106 TLF 2103	 Discussion

WGSS230 **Introduction to Humanities, Health, and Medicine**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Restriction: Permission of ARHU-School of Languages, Literatures, and Cultures department. Cross-listed with: ARHU230, ENGL254, HIST219N. Credit only granted for: ARHU230 , ENGL289C, ENGL254, ARHU298A, HIST219N, or WGSS230.

An overview of the historical, cultural, ethical, and spiritual dimensions of medicine, human health, disease, and death from the points of view of various humanistic disciplines.

0101	Jessica Mathiason TuTh 3:30pm - 4:45pm	Seats (Total: 20) SQH 1105

WGSS250 **Introduction to WGSS: Art and Culture**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP

Credit only granted for: WMST250 or WGSS250. Formerly: WMST250.

Provides students with a critical introduction to the ways that art and art activism have served as a conduit to understanding and challenging systems of inequity and practices of normativity. Interrogating the categories of gender, sexuality, race, class, ability, the course will provide students with an examination of how artists have responded to pressing social justice issues of their eras. While the course centers visual art, students will also engage genres such as music, plays, literature, digital and performance art as arenas of social change.

0101	Danielle Laplace MW 8:00am - 8:50am Class time/details on ELMs	Seats (Total: 25) EDU 3233 ONLINE
0201	Rahma Haji MWF 9:00am - 9:50am	Seats (Total: 25) ONLINE

0301	Danielle Laplace MW 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 25) ASY 3221 ONLINE	
0401	Rahma Haji MWF 11:00am - 11:50am	Seats (Total: 25) ONLINE	
0501	Jocelyn Coates MWF 2:00pm - 2:50pm	Seats (Total: 30) KNI 1103	
0601	Caitlin Leach MF 2:00pm - 2:50pm Class time/details on ELMs	Seats (Total: 25) SQH 2120 ONLINE	
0701	Caitlin Leach MF 3:00pm - 3:50pm Class time/details on ELMs	Seats (Total: 30) LEF 1220 ONLINE	
0901	Taylor York TuTh 9:30am - 10:45am	Seats (Total: 25) ONLINE	
1001	Melissa Stevens TuTh 11:00am - 12:15pm	Seats (Total: 25) ONLINE	
1101	Taylor York TuTh 12:30pm - 1:45pm	Seats (Total: 25) ONLINE	
1201	Sarah Scriven TuTh 12:30pm - 1:45pm	Seats (Total: 25) TWS 1321	
1301	Melissa Stevens TuTh 2:00pm - 3:15pm	Seats (Total: 25) ONLINE	
1401	Sarah Scriven TuTh 3:30pm - 4:45pm	Seats (Total: 25) ASY 3221	
2001	Michelle Rowley MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 20) TWS 1107 LEF 1222	Discussion

2002	Michelle Rowley	Seats (Total: 20)	
	MW 11:00am - 11:50am F 12:00pm - 12:50pm	TWS 1107 ONLINE	Discussion

WGSS255 **Reading Women Writing**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP

Cross-listed with: ENGL250. Credit only granted for: ENGL250, WMST255 or WGSS255. Formerly: WMST255.

Explores literary and cultural expressions by women and their receptions within a range of historical periods and genres. Topics such as what does a woman need in order to write, what role does gender play in the production, consumption, and interpretation of texts, and to what extent do women comprise a distinct literary subculture. Interpretation of texts will be guided by feminist and gender theory, ways of reading that have emerged as important to literary studies over the last four decades.

0201	Jeannette Schollaert	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	KEY 0102

WGSS263 **Introduction to Black Women's Studies**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: WMST263, AASP298I or WGSS263. Formerly: WMST263.

Interdisciplinary exploration of Black women, culture and society in the United States. Drawn primarily from the social sciences and history with complementary material from literature and the arts.

Cross-listing with AASP298I.

0101	Elsa Barkley Brown	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	KEY 0103

WGSS275 **World Literature by Women**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP

Cross-listed with: CMLT275. Credit only granted for: WMST275, CMLT275 or WGSS275. Formerly: WMST275.

Comparative study of selected works by women writers of several countries, exploring points of intersection and divergence in women's literary representations.

0101	Da Som Lee TuTh 12:30pm - 1:45pm	Seats (Total: 30) TWS 1105
0201	Nahid Ahmadian MWF 11:00am - 11:50am	Seats (Total: 30) ARC 1103

WGSS290 **Bodies in Contention**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DVUP, SCIS

Credit only granted for: WMST298D or WGSS290. Formerly: WMST298D.

Explores the contributions of feminist scholarship in framing and resolving contemporary controversies concerning gendered bodies. It includes the ways in which knowledge about the human body has been shaped by cultural ideas of gender, race, sexuality and ability.

0101	Jessica Mathiason TuTh 11:00am - 12:15pm	Seats (Total: 30) SQH 2120
0201	Jessica Mathiason TuTh 12:30pm - 1:45pm	Seats (Total: 30) SQH 2120

WGSS291 **Racialized Gender and Rebel Media**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Credit only granted for: WGSS291 or WMST298N. Formerly: WMST298N.

An introduction to the interdisciplinary field of women's studies and an exploration of the ways in which media has been used as a platform for racial justice, feminist activism, and cultural transformation, with a principal focus on the expressions of women of color. The goals of the course are to explore how different forms of media shape the stories which circulate about race, femininities, masculinities, ethnicities, sexualities, religiosity, power and difference, and to examine how various media formats been used to disrupt dominant stories, to tell new stories, and to create differing understandings of citizenship.

0101	Eva Hageman TuTh 5:00pm - 6:15pm	Seats (Total: 30) SQH 1117

WGSS298N **The Politics of Sexuality in America: A Historical Approach**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DVUP, SCIS

Cross-listed with: HIST289N. Credit only granted for: HIST289N or WGSS298N.

Why do particular issues about sexuality hold such an important place in American political debates? What animates these controversies and what can a historical perspective on these issues add to our understanding of modern sexual politics? This class explores the historical sexual politics that undergird contemporary debates concerning sexuality in America. It focuses on topics that garner significant public attention - Reproductive rights - LGBTQ rights - Sexting - and explores the histories that undergird Americans disagreements.

0101	Clare Lyons MW 10:00am - 10:50am W 12:00pm - 12:50pm	Seats (Total: 23) ONLINE KEY 1117	 Discussion
0102	Clare Lyons MW 10:00am - 10:50am W 1:00pm - 1:50pm	Seats (Total: 23) ONLINE KEY 1117	 Discussion
0103	Clare Lyons MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 23) ONLINE ONLINE	 Discussion

WGSS302 **Feminist, Critical Race, and Queer Theories**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: 6 credits in LGBT, WMST, WGSS or courses that are cross-listed with these. Credit only granted for: WMST302, WGSS302 or WMST400. Formerly: WMST302.

Introduces students to some of the major concepts in feminist, critical race, and queer theories. It examines the questions: What is theory? What forms does theory take? What is the relationship between theory and practice? What is the role of theory in political and social action? In art? In personal life? What does it mean to do theory?

0101	Sydney Lewis TuTh 9:30am - 10:45am	Seats (Total: 30) TYD 2106

WGSS310 **Transgender Studies**

Credits: 3 Grading Method: Regular, Pass-Fail

Cross-listed with: LGBT310. Credit only granted for: LGBT310, WMST310 or WGSS310.

Introduces students to the interdisciplinary field of transgender studies, providing a history of the field and engaging current debates within it. Students will explore the emergence and consolidation of trans identities, practices, cultures, and knowledges across medical, historical, sociological, cultural, and artistic contexts, paying particular attention to dynamics of race, class, and ability, to global and transnational difference, and to the implications of transgender studies for understanding gender and sexuality overall.

0101	Damien Hagen	Seats (Total: 30)
	MW 1:00pm - 2:15pm	BPS 1236

WGSS319C **Workshops in Gender, Race, and Queer Studies; Gender, Drag, and Burlesque**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics will change each semester but all workshops will be designed to have students think transdisciplinarily and interdisciplinarily about a specific topic or issue and to understand how differing approaches shape knowledge. Assignments within the workshops are aimed at students developing their skills in forms of presentation beyond the written essay, e.g. oral argument, digital or creative projects. Collaborative work must be central to all workshop courses; these collaborative activities do not preclude the possibility of individual research/writing assignments but the Workshops should emphasize conversation, debate, collaboration, and critique more so than the individually authored essay.

0101	Sydney Lewis	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	TLF 1103

WGSS319U **Workshops in Gender, Race, and Queer Studies; Introduction to Critical University Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics will change each semester but all workshops will be designed to have students think transdisciplinarily and interdisciplinarily about a specific topic or issue and to understand how differing approaches shape knowledge. Assignments within the workshops are aimed at students developing their skills in forms of presentation beyond the written essay, e.g. oral argument, digital or creative projects. Collaborative work must be central to all workshop courses; these collaborative activities do not preclude the possibility of individual research/writing assignments but the Workshops should emphasize conversation, debate, collaboration, and critique more so than the individually authored essay.

This workshop is an introduction to Critical University Studies, a field that turns a critical eye on the university to understand its role in shaping inequalities. Rather than looking at higher education as an institution that serves all members of the public equally and is neutral and depoliticized, Critical University Studies examines the values and politics of higher education.

0101	Jaime Madden MWF 11:00am - 11:50am	Seats (Total: 30) VMH 1203

WGSS320 **Women in Classical Antiquity**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP

Cross-listed with: CLAS320, HIST328W. Credit only granted for: CLAS320, WMST320, WGSS320 or HIST328W.

A study of women's image and reality in ancient Greek and Roman societies through an examination of literary, linguistic, historical, legal, and artistic evidence; special emphasis in women's role in the family, views of female sexuality, and the place of women in creative art. Readings in primary sources in translation and modern critical writings.

0101	Lillian Doherty TuTh 3:30pm - 4:45pm	Seats (Total: 30) KNI 1103

WGSS358 **Undergraduate Teaching Assistantship**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail

Students work under the supervision of a faculty mentor to assist with an undergraduate LGBT or WGSS course while also becoming conversant in feminist, critical race, and queer pedagogical debates and approaches.

Restriction: Permission of ARHU-Women's Studies department. Repeatable to 9 credits. Students work under the supervision of a faculty mentor to assist with an undergraduate LGBT or WMST course while also becoming conversant in feminist, critical race, and queer pedagogical debates and approaches.

Contact department for information to register for this course.

WGSS368 **Undergraduate WGSS Internship**

Credits: 3-6 | Grading Method: Regular, Pass-Fail

Undergraduate Internship in a position related to women, gender, and sexuality studies and overseen by a member of the WGSS faculty.

2001	Neel Ahuja Contact instructor or department for details.	Seats (Total: 3)
2201	Jaime Madden Contact instructor or department for details.	Seats (Total: 3)

WGSS378 **Undergraduate Research and Creative Works Assistantship**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

The Undergraduate Research Assistant provides an opportunity to develop a deep understanding of specific research methods and topics while involving the student in a professional role that requires ethical responsibility. The precise syllabus for the URA will be personalized to the student's interests and abilities, as well as to the specific research project and the Faculty Mentor's expectations. The student will meet with the Faculty Mentor prior to enrolling for a URA in order to determine the responsibilities and learning goals for the semester.

2201	Jaime Madden	Seats (Total: 3)
	Contact instructor or department for details.	

WGSS379A **Topics in Women, Gender, and Sexuality Studies; Honors Thesis Writing I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Thematic exploration of a topic in women, gender, and sexuality studies.

By Permission Only.

Contact department for information to register for this course.

WGSS379B **Topics in Women, Gender, and Sexuality Studies; Honors Thesis Writing II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Thematic exploration of a topic in women, gender, and sexuality studies.

Contact department for information to register for this course.

WGSS428D **Topics in Women, Gender, and Sexuality Studies; Debt Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Thematic exploration of a topic in women, gender, and sexuality studies.

Debt is a topic that makes news headlines regularly: politicians propose plans to eliminate student debt, the national debt rises, and debt is hampering access to medical care. Debt is deepening inequalities, and while it has been a focus for scholars of economics, it is also increasingly a concern for those who study US culture. In this seminar, we marshal recent scholarship from Women, Gender, and Sexuality Studies to understand how debt functions, whom it fails, and what it says about economic inequality and its relationship to race and gender in the contemporary US. We work together to understand the moral charge of debt and we ask how ideas about personal responsibility circulate. We study topics including imprisonment, reparations, the relationship of debt and environmental disaster, student debt, and the work of anti-debt activists.

0101	Jaime Madden	Seats (Total: 20)
	F 1:00pm - 3:30pm	WDS 0104

WGSS428L **Topics in Women, Gender, and Sexuality Studies; Twenty-First Century Black Feminisms**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Thematic exploration of a topic in women, gender, and sexuality studies.

Cross-listing with AASP498C. Credit only granted for WGSS428L, WMST428L, or AASP498C. Built loosely around Dr. Brittney Cooper's 2018 Black feminist manifesto Eloquent Rage, this course looks at Black women's anger as a generative force for social change. Through reading Cooper's book, and the intersectional Black feminist texts that inspired it, this course will explore Black women's sexuality and family life, Black popular culture, Black women's politics, Black women's bodily autonomy, and the simmering rage which undergirds many Black women's experiences in the United States.

0101	Sydney Lewis	Seats (Total: 30)
	Th 4:00pm - 6:30pm	KEY 0100

WGSS471 **Women's Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a program in the Harriet Tubman Department of Women, Gender, and Sexuality Studies; or must be in a major within SPHL-Behavioral & Community Health department. Cross-listed with: HLTH471. Credit only granted for: HLTH471, WMST471, or WGSS471.. Formerly: WMST471.

The women's health movement from the perspective of consumerism and feminism. The physician-patient relationship in the gynecological and other medical settings. The gynecological exam, gynecological problems, contraception, abortion, pregnancy, breast and cervical cancer and surgical procedures. Psychological aspects of gynecological concerns.

0101	Tracy Zeeger	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

0201	Tracy Zeeger	Seats (Total: 45)
	Class time/details on ELMs	ONLINE

WGSS488A **Senior Seminar; Black Women in the Arts**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Seminar for advanced majors in women's studies or other students with appropriate preparation. Interdisciplinary topics will vary each semester.

Restriction: Must be a student in the WGSS major (49905), WGSS Certificate (9Z004), or BWST minor (#AR01); or by permission of the department.

0101	Elsa Barkley Brown	Seats (Total: 15)
	W 4:00pm - 6:30pm	TLF 2103

WGSS489A **Individual Research in Gender, Race and Queer Studies; WGSS Honors Thesis Writing**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Allows students who wish to continue the research they began in WMST487 or WGSS487 to do so under the guidance of an individual faculty mentor. Each student taking this class will develop an individual syllabus based on the project on which they are working, with the goal of developing a work of scholarship specific to their interests that can serve as an entry point for graduate study or professional work.

Contact department for information to register for this course.

WGSS498M **Advanced Special Topics in Women, Gender, and Sexuality Studies; Women and the Civil Rights Movement**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced study of a thematic topic in women, gender, and sexuality studies.

Cross-listed with HIST360 and AASP498I. Credit only granted for HIST360, AASP498I, WGSS498M, or WMST498M. Twentieth-century U.S. civil rights movement from the vantage point of women, considering both women's involvement in the legal campaigns and political protests and the impact of civil rights struggles on women's condition, status, and identity.

0101	Elsa Barkley Brown	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	KEY 0126

WGSS499 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Research and writing or specific readings on a topic selected by the student and supervised by a faculty member of the Women's Studies Department.

Contact department for information to register for this course.

WMST Women's Studies Spring 2022

WMST602 **Approaches to Women's Studies II**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: WMST400; or students who have taken courses with comparable content may contact the department.

Continued examination of intersectionality and interdisciplinarity with emphasis on the politics of knowledge production and identity.

0101	Neel Ahuja	Seats (Total: 12)
	W 4:00pm - 6:30pm	TWS 0134

WMST618 **Feminist Pedagogy**

(Perm req)

Credits: 3 Grading Method: Regular

Examines the higher education classroom from a feminist perspective through theory and analysis. Students are graduate teaching assistants with the Women's Studies department.

0101	Michelle Rowley	Seats (Total: 2)
	Contact instructor or department for details.	

WMST619 **Women's Studies Teaching Practicum**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

Provides Women's Studies graduate teaching assistants with ongoing regular faculty supervision during the semesters the students are teaching WMST courses.

0101	Alexis Lothian	Seats (Total: 10)
	Contact instructor or department for details.	

WMST628 **Women's Studies Colloquium**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

An intensive advanced exploration of current problems and issues in women's studies.

For WMST students only.

0101	Alexis Lothian	Seats (Total: 20)
	Contact instructor or department for details.	

WMST698C **Special Topics in Women's Studies; Introduction to Cultural Studies: Mediated Identities in Global Context**

Credits: 3 Grading Method: Regular, Audit

Advanced worik in selected topics in Women's Studies.

Cross-listed with COMM738C. Credit only granted for COMM738C or WMST698C.

0101	Sahar Khamis	Seats (Total: 15)
	Tu 6:30pm - 9:30pm	SKN 2127

WMST698L **Special Topics in Women's Studies; Queer Political Histories**

Credits: 3 Grading Method: Regular, Audit

Advanced worik in selected topics in Women's Studies.

Cross-listed with AMST629L. Credit only granted for AMST629L or WMST698L. This course asks after the relationship between queer politics and lesbian, gay, bisexual, and transgender identities, in particular; the interface with other regimes of classification and resistance, namely, race; the relation to capitalism as well as to rights claims; and the forms ofdis/organization including social movements throughout history.

0101	Christina Hanhardt	Seats (Total: 15)
	Tu 4:00pm - 6:40pm	TWS 0134

WMST699 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Research and writing on specific readings on a topic selected by the student which is approved and supervised by a faculty member of the Women's Studies Department.

Contact department for information to register for this course.

WMST709 **Directed Independent Reading for Major Field Exam**

(Perm req)

Credits: 1-4 Grading Method: Sat-Fail

Directed reading in preparation for Major Field Exam. In consultation with their advisors, students identify, analyze, critique and synthesize material relevant to their major fields of inquiry. Grading will be based on combinations of oral performance in the bi-weekly meetings, production of annotated bibliographies and synthetic papers.

Contact department for information to register for this course.

WMST799 **Masters Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

WMST898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

WMST899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.